



stance of even one of the officials being censured or found fault with for anything of the kind.

I had under me four or five overmen, twelve deputies, and about 900 to 920 men for an average output of 750 tons of coals per diem, with a timber consumption of about 6000 ft. per annum, the "roof and stulls" being very bad.

From the foregoing I feel certain no objection can be made if only the clause of Mr. Bruce's Bill be applied in a similar manner to that of Prussia. I can only say I look forward to an improvement in the class of managers or overlookers. I do not apply this to the viewer class, who are no doubt much above the grade requisite for carrying this weighty responsibility.—April 3.

NITRAM.

## MANAGEMENT OF MINES—CERTIFICATED MANAGERS.

SIR.—It is scarcely possible to attach too much importance to such views as those of your correspondent "G." with reference to certificated managers in connection with the Mines Regulation Bill, for I am convinced that if the English Government undertake the control of colliery operations to the extent they would under the proposed Bill, the loss of life would be at least twice as great in collieries as it is at present. It could not for a moment be supposed that the continental system of assuming all men to be guilty until they prove themselves innocent would be sanctioned in this country in connection with mine officers, whilst all other Englishmen enjoy the good old rule of assuming every man to be innocent until he is proved guilty; we must, therefore, conclude that what the Government intends is to make each man responsible for his acts, not as at present to his superior officers, but directly to the Government.

Now, as it is extremely difficult in nine cases out of ten, even for those actually on the mine at the time of an accident, to determine which particular man is blameworthy, how much more so will it be for the outsiders who will represent the Government? The present system of inspection ensures a searching investigation whenever an accident happens, and this is the most that can safely be done. The examination system would be most prejudicial to the workmen, as it would give almost entire control of all mine officers to the sons of present officers of mines, for it cannot be doubted that a man receiving a good salary will be better able to educate his sons up to the standard necessary for passing the examination than a workman would be able to educate himself, or his sons either. If the examination system be adopted there will be an end of workmen rising to be great men, just as the changes which have been made in the last half century prevent the advancement of such men as Elliot and Stephenson, though there are certainly some, even now, among the working colliers of equal intelligence. At present, either a man must have a high-class school education, or he must lose the greater part of the benefit of his intelligence by associating himself with those who make a business of bringing capital and intelligence together.

April 3. CARBON.

## THE MINES REGULATION BILL.

SIR.—In the Supplement to the Journal of March 23, in noticing the proceedings of the Midland Mining Institute, it is stated that "the underwriters as a body appear not to object to the registration and examining clauses." I can assure you that as a body they do object very strongly, which you will see by the following:—

"The West Riding Underwriters' Association, held at the Old George Inn, Briggate, Leeds, think it necessary, and of the greatest importance, that all colliery managers should at once take united action and petition Parliament against the obnoxious, oppressive, and impracticable nature of the clauses set forth in the Bill on this head, and ought to use their utmost endeavours to get this part of the Bill so amended and modified as to be entertainable by the present race of colliery managers, who consider such examinations and the holding of certificates of competency entirely useless."

Several meetings have since been held on the matter, and the general opinion is that should the Bill pass in its present form it will preclude a working man from ever rising to become a successful candidate for a colliery manager, however enterprising he may be; for no working man can afford to give his son the scientific training necessary for such an examination. They also consider that the real practical underwriters generally rise from the working men, and if they are to be examined it should be by half such practical men, and once having obtained a certificate of competency that no Secretary of State, inspector, or body of workmen ought to have the power to take it from him, or any one, but his employer, have the power to discharge him.

J. R. P.S.—The underwriters from the various collieries in the neighbourhood of Leeds have sent a deputation to London to support those views.

## THE RATING OF MINES.

SIR.—A short time ago I saw some important letters in your Journal on the rating of mines, and I hope the Government will take this subject into consideration, and settle the question; and if it does so it will have accomplished a great good work, well worthy of the nation's gratitude. It has been suggested that as mining is speculation—a leap in the dark to the adventurers, but a sure profit to the lords if any ore is sold—all the rates and taxes, except income tax, ought to be paid by the lord, who runs no risk, and who invariably profits; while it is a common thing for tenants to pay large yearly rents and royalties, but owing to unexpected difficulties and losses the tenants find themselves losers as long as they continue working the mines. But there is a worse phase than this for the tenants—that is, that they may expend a very large capital, and never get a shilling of their money back again. The law, therefore, ought to be as before stated—to compel the lords to pay the rates and taxes. Some of your readers will, perhaps, laugh at this suggestion, and ask if it is possible for noble lords and legislators to impose upon themselves payments, however just, which have hitherto unjustly fallen upon the hard-working and too frequently disappointed adventurers? In mining there is great danger, and great loss of life, causing great privations and suffering to widows and orphans; and these are sufficient reasons why mines ought to be taxed, and the lord of the property, and not the tenant, as heretofore, should be called upon to pay. In France and other countries the mines belong to the Crown or respective Governments, which are at all times ready to grant leases, &c., to capitalists at nominal sums, in order to encourage industry, and find employment for the people, there being little, if anything at all, for the tenant to pay, except his workmen, which enables him to pay his rates and taxes; while in this country the lords of the properties screw out of their tenants the very last farthing, and this is another reason why the lords should pay the taxes, and not the tenant.

Wolverhampton, April 10. RIGHT ANGLE.

## GOVERNMENT INSPECTION OF COAL MINES.

SIR.—I have well considered the long letter you published in last week's Journal, and again beg to call your attention to a letter on this important subject published in your Journal about two years ago, signed Reuben Plant, in which he clearly pointed out a scheme for the inspection of mines, which, if put into practice, would be at once efficient in every respect. Mr. Plant is a respectable man, who knows mining in all its phases, a thorough practical mining engineer, of long standing, and one whose suggestions ought to have our best consideration. He proposed a scheme in minute details, which if put into force would at once place the miner, the manager, the master, and Mines Inspector, in such position as would render all accidents, but the unavoidable, beyond possibility. I say the unavoidable, and wish it to be clearly understood that it is, and ever will be, beyond the power of man to vouchsafe every man who is engaged in so dangerous a calling. Accidents take place in the high road and streets in broad daylight, in the fields, and not unfrequently in our own rooms; therefore, it will be expecting too much to look forward to a period when mines will be worked without any accidents at all. Let the Government adopt a plan as nearly as can be to that suggested by Mr. Plant, and you will have a good and efficient inspection; and, I think, Mr. Editor you will render a great public service by re-publishing Mr. Plant's letter. I am connected with mines, and should much like to see a good and efficient inspection—where every man is expected to do his duty, and inspector and manager responsible in their respective places.

Nothing can be more unjust than for Government to have a staff of informers going here and there after an accident has taken place, and taking proceedings against this man or that man, because he

could not, or at least did not, prevent an accident which was the duty of the man who had lost his life to guard against. Masters and men are agreed to have inspection, in fact we all invite it, but let it be fair and efficient. The Government Inspector can be the highest informer, but let him also be liable to be informed against if he fails to do his duty. I have no copy of the letter before referred to, but shall be glad to see it appear again in your Journal. The average loss of life in our mines, I observe, is put down at 1000 per annum, which is truly a great, a very vexatious, loss of life—yea, a heartrending story; but we must not forget that while this is a dark cloud on the page of mining enterprise and mining labourers, that it is not alone, there are many more dark clouds about. The Accidental Assurance Company, in a statement signed W. J. Vian, secretary, which I herewith enclose, states that "Upwards of 2000 deaths from accidents in London alone are recorded by the Registrar-General in his last annual report—15,091 deaths in England being returned as accidental." This, I say, makes dark darker, and those who read and reflect will at once be disposed to ask the important question—If we have 14,091 deaths from accidents in our streets, lanes, houses, &c., how is it that we have so few as but 1000 per year in all our dark mining operations? I beg to suggest that the class of men for Inspectors should be men raised from the mining ranks, who have a sound practical knowledge, who are not only capable of talking, but also capable of directing. On this subject you will find in Mr. Plant's letter a well digested scheme, which I beg you will kindly re-publish, for the further consideration of colliery owners, workmen, inspectors, and legislators.

COALMASTER.

## THE COPPER TRADE—SPAIN.

SIR.—The present high price of copper, occasioned in a great measure by the probabilities of a considerable diminution in the Chilean supply for some time to come, renders it necessary to seek fresh fields to produce sufficient to keep pace with the demand. I would inform your readers that in this country, and in the immediate vicinity of this city, there are some excellent unworked copper mines, from which a large supply of ore may be at once obtained, yielding 15 per cent. The outlay necessary for developing the mines would be very small; the lodes are clearly visible; the very first day's work would produce paying results. The price of labour is low; the cost of transport moderate, so much so that ore can be put on board in this port costing, when all expenses paid, 4/- 10s. per ton.

The present high price of copper in England will have one good effect, it will be the means of opening up fresh channels of supply; here there is an abundance of splendid mineral, requiring only the spirit of British enterprise to make it available. J. WOODS.

Santander, Spain, April 5.

## MINING IN CALIFORNIA.

SIR.—I am at present visiting the Grass Valley Gold Mines, Nevada County, and, with your permission, will give a few remarks in reference to them. The principal mines at work in Grass Valley are the Eureka, the Idaho, the Empire, the North Star, and the Coe. The North Star and Empire Mines are situated to the south of the town, from one to two miles distant; both of these mines have been sunk to depth of 1200 feet, and have been successfully worked for the last 16 years; but the most prominent mines of the district are situated east of the town, which are the Eureka and the Idaho.

The EUREKA MINE has declared for the last seven years an average dividend of \$30,000 per month; but the main body of pay ore has pitched into the Idaho ground, and the ore raised at present is of a very low grade.

The IDAHO MINE has a brighter future awaiting it than any gold mine I have seen on the coast, and a few remarks (as given to me) in reference to it may not be uninteresting. Operations were commenced on the Idaho lode in 1863 when it was worked with good results to the depth of 50 feet, at which depth the lode became poor, and work was suspended until 1865, when machinery was erected, and the present engine-shaft commenced. A large amount of capital was expended before the mine could be brought into a paying condition, and assessments were made until 1868, from which time, however, regular monthly dividends have been declared, and the net profit from a 15-stamp mill, in 1871, amounted to \$232,000.

EAST EUREKA MINE is owned by a London Company, and is situated to the east of the Idaho, of which lode I have no doubt it is a continuation; the lode has been extensively worked to a depth of from 40 to 50 feet, at which depth, as in the Idaho and Eureka Mines, ore of a low grade has been met with. There are four men at work, taking out ore which shows considerable free gold. I was accompanied through the company's fine 20-stamp mill by their agent, Mr. Cross, who is a thoroughly experienced miner and millman. Viewing the situation and facilities of this mine, I see no reason why, with a moderate outlay, and under the management of so competent a man as their present agent, a most valuable property should not be developed.

The COE MINE is situated to the west of the Eureka; it has been let to a party of tributaries, and the ore raised seems of fair quality.

I leave here to inspect the Hydraulic and Quartz Mines in the upper part of the State, from whence you will hear from me.

Grass Valley, Nevada County,

March 14.

WM. B. ACTON.

## MINING IN IRELAND.

SIR.—Under the above heading your correspondent in last week's Journal makes a most erroneous statement respecting the Glandore Copper, Iron, and Manganese Mines, and, by whatever motive he may have been actuated, I beg to inform him that the manganese ore is not exhausted at Glandore; but, on the contrary, shows every prospect of improvement in depth, and may be traced for miles through the country on one continuous belt, fathoms in width in many places. The copper ore lodes, though comparatively little developed, have yielded quantities of the richest ores of copper—ruby copper, black oxide of copper, and grey copper ore, also copper in the metallic state; and as a proof of the growing richness of the mine, beautiful stones of red and black oxide of copper, over 1 cwt. in weight, have recently been raised from the deepest workings on a lode 2 ft. wide, which extends the full length of the sett. Furthermore, for the information of your incredulous correspondent, I have no hesitation in stating (when machinery comes into play) the manganese ore of the Glandore property will pay for working all three minerals, and the boundless quantities of iron and copper ores known to exist there go to swell the revenue of the fortunate shareholders. Rarely indeed does mining enterprise meet with so glowing a prospect of success as presented at Glandore, and when a thorough system of development is set on foot the profits cannot fail to be exceedingly large and permanent. By advancing statements totally unfounded your correspondent has only shown the malignity of the distemper which prompted him to indulge in raving so fallaciously.

Glandore, April 9. THOMAS TOMKIN,  
Superintendent at the Mines.

THE ERGLODD AND PENPOMPREN SILVER-LEAD  
MINING COMPANY.

SIR.—Seeing a letter from Mr. Edward Gledhill in the Supplement to last week's Journal, wherein the said Mr. Gledhill takes upon himself to "correct the most glaring of the misrepresentations" of the reports made by Mr. Jehu Hitchins, the most eminent practical authority in Great Britain, and who has travelled the world over and over again; of Mr. T. L. Cotttingham, a gentleman of great experience, and now conducting many mines paying great profits on the money invested; of Mr. Smythe, a person who, for his age, has seen as much of mining as any man; and myself, who have been connected for some years, with others in this county, with the Lisburne Mines, Goginan, East Darren, Cwm Elin, South Darren, Old Darren, Bronfloyd, Allt-y-Crib, &c., in all of which my predictions and reports have been more than verified. I think I may venture to state a few words in reply to his communication.

I believe all that Mr. Gledhill ever did in this county was to look after the works of Penpompren and Erglodd; and I have no hesitation in saying that, from the manner he conducted them, they must have proved most ruinous to the party for whom he acted; for, to speak the vulgar truth, he knew about mining in Cardiganshire as much as a "pig does about a holiday," and no more. Mr. Gledhill asks whether we saw the bottom of the mine? We did not, nor did we wish to do so. The mode recommended for the future working of the mines is entirely different to that which has hitherto been adopted, and is such as "cannot fail to bring these mines, with a small capital and in a short time, amongst the best that have ever been worked in the county." As to Mr. Gledhill thinking I was not informed of the adit being driven since I went into it, 20 years ago, he is just as ignorant on that point as he is about other matters;

and as to his disposing of the mass of ore, predicted as left standing by me, such is the case or not, only exposes him the more, and creates a feeling of pity for his ignorance of practical mining more than anything else.

Mr. Gledhill says (but no one else will say so) that these mines "were wrought extensively, spiritedly, economically, and judiciously." Now, I say, "no one—neither you nor I—nor any one else—can be taught in a very great recommendation; and supposing they were wrought extensively and spiritedly," I deny, in toto, that they were worked either economically or judiciously. From men having no practical knowledge of mining this county has suffered greatly; as not only are they content with their miserable mismanagement, and squandering unnecessary capital, but they make endeavours afterwards to justify themselves in the eyes of their employers; and not only this, you hear repeatedly from parties willing to embark in legitimate mining that such and such a sum of money was lost in such and such a mine, when, if properly managed, the mines would have given good profits, and the losses not been incurred.

In conclusion, Cardiganshire was not much enlightened by Mr. Gledhill; his mines, although good, he cannot make pay their costs; and had he the management of the very best mine or mines in this county, I believe the results would be similar to what they were under his control at Penpompren and Erglodd.

Mr. Gledhill has now left this county; and, for the good of the mining interests in the neighbourhood of Shrewsbury.

Goginan, Aberystwith, April 8.

ABELOM FRANCIS.

THE ERGLODD AND PENPOMPREN MINES.

SIR.—We notice a letter from Mr. Gledhill in reference to the above in the Supplement to the Journal of Saturday last. Although the animus of the writer is very palpable, it is possible that there is a substratum of truth in his letter, and he may be acquainted with facts unknown to the gentlemen who, on behalf of the shareholders, reported upon this mine. We should have thanked him had he exercised sufficient courtesy to have communicated with us on the subject. However, we shall sift the matter to the bottom, and should we find the under-scriptions; but with the following report from one who ranks first in his profession, we have no fear of the result of our enquiries. Mr. Gledhill seems to have overlooked Mr. John Hitchins' report appended hereto.

JOSEPH DAY AND CO.

"Feb. 12.—Having visited these properties, situated near the village of Tal-y-bont, in Wales, with a view to give you my opinion thereon, I have briefly to state that their uninterrupted extent, both longitudinal and lateral, as the map shows, is ample sufficient, and affords facilities in its vicinity, for a field of extensive mining enterprise. The fact that the property adjoins the high road leading to Aberystwith, rendering access thereto convenient, and its propinquity to a shipping port, are advantages that many mines do not possess. The regular slope of the surface is also very well adapted (better than most) for laying out the workings and adapting machinery thereto, particularly for water-power, of which important element there is an ample available supply at all seasons. The geological formation is the usual lead-bearing rock of the surrounding productive mines of this locality, as can be seen and compared with the products of the several lodes of these properties. Of these lodes about eight are traceable running through and into other properties, or connecting therewith, showing ancient as well as modern explorations, having various directions and underlies, thereby forming various intersections and junctions, generally regarded as favourable; and, as the lodes that could be examined presented strong indications, one in particular giving almost unmistakable evidence of productiveness, and reasoning from analogy on the other, there is every prospect that they will together constitute a really productive mining enterprise, the more so as at the points of contract of the different lodes with each other they are expected to become enriched; besides, they afford greater facilities for driving from one vein to the other on the diagonal road, instead of by means of unproductive and expensive cross-cuts; and here I would remark that Hobson's, or the cauter lode, which it is to be a productive one, should at once be driven up across the other lodes, for the double purpose of proving them at that depth, as also to form a deep adit to drain the surface water, and thereby relieve the pumps when deeper workings shall be undertaken. Had more been done in this very promising enterprise I could possibly have made my report more complete; however, from the foregoing remarks, upon which possibly the gentlemen whom I met on the property may enlarge, it will easily be gathered that I have毫不hesitatingly formed generally a very favourable opinion of this adventure, and, therefore, can strongly recommend it as offering more than an average mining enterprise.—JEUH HITCHINS."

ERGLODD AND PENPOMPREN MINING COMPANY.

SIR.—I see in the Supplement to last week's Journal a letter from Mr. Gledhill, making some remarks upon reports made by Messrs. John Hitchins, Schmidt, A. Francis, and myself, on a lead sett at Tal-y-bont, Cardiganshire. I seldom notice such effusions, but my attention has been drawn to this one, and I say that I got the best information I could on the spot, that I am not in the habit of wilfully misleading people, that I have samples of silver here from lodes opened on the sett which I believe Mr. Gledhill never saw or thought of, and which assay over 50 ozs. of silver. He should know this is not an extraordinary yield for Cardiganshire silver-lead, and that I consider myself quite as competent to examine and value a mineral property honestly as Mr. Gledhill or anyone else.

T. L. COTTINGHAM.

VAN CONSOLS LEAD AND BARYTES MINING COMPANY.

SIR.—We, the directors of the Van Consols Company, are most desirous of endorsing the opinions expressed by "A Shareholder," in last week's Journal, as to Mr. Rosewarne's advertisement. I would be glad to know what right Mr. Rosewarne has to interfere with the property of the shareholders of the company in a way that all lovers of justice and decency must thoroughly deplore. We think the interests of ouly shareholders requires that our most energetic protest be made against such advertisements as Mr. Rosewarne's, and to apprise the writers that such offers to sell shares "put off more time on 'em" are intended only to depreciate the price of the shares. Such bargains, if legal, or even recognised by the Stock Exchange, can only have the most demoralising effect on respectable share transactions, and I feel sure the respectable brokers referred to acted for the benefit of their clients in declining to purchase shares on the unbusiness-like terms proposed by Mr. Rosewarne.

Gresham House, Old Broad-street, April 11. (For the directors)

MATTHEW GREENE.

## VAN CONSOLS.

SIR.—"A Shareholder" might just as well have signed his name to the letter he wrote in last week's Journal, respecting this mine. The general public would then have at least believed his statements savoured somewhat of truth. Why, then, did he not come out of ambush? I am still a seller of these shares at 4/-, Old Broad-street, April 9.

THOMAS ROSEWARNE.

## TREWEATHA MINE.

SIR.—I have this morning received a copy of the proceedings of the meeting held on the 8th inst., and the statement of accounts then submitted. On reference to the report forwarded to me in July last, I find that the arrears of call were then stated to be 1841/- 15s., and which same amount appears in the assets presented at the meeting held on the 8th inst. As a shareholder for some years in this undertaking, I must protest against the apathy of the adventurers who attend the meetings in allowing such a heavy amount to remain unpaid from time to time, and unless some decided measures are taken to enforce the payment I shall appeal to the Stannary Court for my own protection. The accounts show nearly 4000/- due to the merchants, and as the next three months returns are not likely to be more than sufficient to meet the working expenses of the mine, I cannot see why a call should have been shelved when it was so absolutely necessary. The way the affairs of this company are conducted appears to be anything but creditable to the three gentlemen so frequently elected as members of the committee.—London, April 10.

A SHAREHOLDER.

## CEFN CONSOLS MINE.

SIR.—Some weeks ago I received an intimation from the secretary of Cefn Consols that, unless the remaining shares were taken up, the company must be wound up; and, as I had made enquires as to the prospects of the Cefn Mine, I determined to take double my quota of shares. I believe the Chairman has done more than this, so that we may hope in a short time to hear of a good discovery on our property.

whole, is looking up. King Arthur (Tintagel) is looking well. I have some of the ore; it is certainly splendid copper, and I wish them every success in the undertaking.—Wadebridge, April 9.

WM. PAYNTER, Jun.

#### NATIVE GREY AND RUBY SILVER.

SIR.—Mr. C. Penning's letter on this subject in the Supplement to last week's Journal must have been penned with more than ordinary faith in the ignorance and credulity of the public relative to mining matters. He says a man working with him and another raised, I presume from the East Cornwall St. Vincent or St. Vincent Mines, "an average of 6 cwt.s. of silver ore per day for ten days from one deposit, the greater part of which was worth 4s. 6d. per ounce as broken." That is, in ten days 3 tons of silver ore were raised, and more than half of it was broken was worth 4s. 6d. per ounce, or 3042. per ton of 2240 lbs., so that the greater half being worth that amount per ton, upwards of 10,000/- sterling was the product of the ten days work, reckoning the other half of the stuff raised to be entirely worthless."

It is a pity Mr. Penning modestly refrains from putting a value on the smaller half of the silver ore; but although I think he has said enough to enable anyone to judge of the amount of faith to be placed in his statements, I hope the Chancellor of the Exchequer or his agents will accept these statements as facts, and heavily assess him to the Income Tax. The lord of the mine will also act wisely in disputing this result, and accepting dues on the amount, if he can get ALPHA.

#### GUIDE BOOK TO MINING ADVENTURE.

SIR.—The year 1872 seems to promise to be a brilliant year in mining speculation, providing they be carried on with sufficient energy and sufficient intellectual power. The price of shares in the majority of mines is brought down to the means of the middle classes of society, and this is a class who much need it, for their untried energy, industry, and indomitable perseverance in the prosecution of their business is a great tax on their comfort and respectability in other parts, which all men need. But their resources do not admit of speculation; all must be sure ground—solid rock. To assist them in this way in mining pursuits for the next year, or years to come, it would be very advantageous if some clever hands were employed in compiling a Book of Directions in Mining, especially Cornish mining, and lead mining in Wales and Shropshire, with maps of all the mining districts, and tables showing the age of all the existing mines and the results of their workings. If all these necessary circumstances of mining were brought together into a few pages of letterpress, in the shape of a Guide Book to Mining Adventure, it would be a very great assistance, and add much to the wealth and importance of mining operations. M. A.

Tolnes, Devon.

#### MINERAL HILL MINING COMPANY.

SIR.—The complete collapse of this company is calculated to injure American investments, and I would suggest that a full enquiry be made into the original formation of the company, and if such is done I think I am justified in saying that the discredit will not fall on America, but upon those who inspected the mine, and assisted the promoters to sell a completely undeveloped property for \$100,000—half debentures and half shares—that no sane man would dream of buying at 100,000/- sum even more than was paid to the American owners for the mine; this fact can easily be ascertained from any person in London connected with American business. Such an immense sum as is said to have been paid for this property would buy a fully developed and dividend paying mine, with all machinery, and returning a net income of 100,000/- per annum, whereas this property was undeveloped, nothing but locations partly opened, and in no sense could be even called a true mine.

HUGH H. ROCHE.

Palmerston-buildings, April 11.

(For remainder of Original Correspondence see to-day's Journal.)

#### Royal School of Mines, Jermyn Street.

[FROM NOTES BY OUR OWN REPORTER.]

LECTURE XXXII.—I have (continued Mr. SMYTH) referred to some of the methods by which the shafts of mines are usually secured, so long as timber is the most suitable material for that purpose. In fact, it is by this means the greater part of those, the metalliferous mines, have to be secured; and reasonably so, because most of them are put down as exploratory, in ground of more or less uncertain character. When shafts are carried out on a scale like that exhibited by a longitudinal section of the great mine called the Levant, in Cornwall, and are commenced with a certainty of having to go to depths of 200 or 300 fms., great expense is gone to, and they are lined with brick-work. No doubt motives of economy suggest that dangerous portions of the shafts should be lined with timber for the time being, when there is uncertainty as to whether they will be required longer than the timber will last. When, however, it is found that instead of four or five years shafts are likely to be required for 20 or 30 years, the old timber work had better be removed at once, and stronger put in. This brings us to consider the enormous cost of timbering in some cases. The statistics, indeed, of most mines will show how serious a portion of the expenditure goes for timbering, and how important in the economy of working it is that the most suitable woods should be selected, and that they should be placed in positions and under circumstances the best for preservation. There are mines in the North of England in which the expense of timbering comes to 1s. or 1s. 6d. per ton on the mineral raised. I am not speaking of coal, but of minerals of greater intrinsic value. In collieries, however, the expense is very great both for props and sets for the roads and airways. Equally important is the skill and judgment with which the timber is put in, and all the hazard said on that score respecting the levels applies with double force to the case of shafts. Not a few accidents have taken place in the neighbourhood of Cleator Moor, which there is good reason for believing have arisen from the collapse of shafts from a fault in the timbering. As a general rule, shafts cannot be thoroughly secured in ground of a yielding character, unless the timbering is soundly rested on bearers at the sides, put into a strong and firm material. It is a matter of great importance as regards the security of a shaft that the timber in it should be always kept in an efficient state; and the loss of a shaft is also so serious a matter, involving frequently loss of life, and always loss of property, that every careful manager will examine the timber from time to time, and especially those in the shafts, so that as soon as any symptoms of unsoundness appear the sets so failing may be replaced. This is a difficult task, and is usually accomplished by putting in transverse struts temporarily, to secure the ground above and below, while the intermediate set is taken out and replaced with safety. Many plans have been suggested to render the timber more durable, for it is unfortunately the fact that when the ventilation is bad, and the temperature high, even so short a period as four or six months will suffice to initiate the process of decay; and even where it will stand for a year or two the necessity for replacing it comes round very rapidly. Unfortunately, some of the best means of preventing dry-rot are too expensive for adoption in mines, as, for instance, that of injecting certain sulphates of zinc, iron, and copper into the fibre. Crooked timber is objected to, because it gives out a strong and disagreeable smell, which pervades all the levels in its neighbourhood; but it is found to stand remarkably well. Timber in salt mines stands well, and it has, therefore, been suggested that in other mines the timber should be worked in brine; and in some mines, where the water is impregnated with sulphates of iron and copper, the process is employed with advantage. Thus, in certain mines in the Vale of Avoca, in the county of Wicklow, where the water being highly mineralised the wood is kept for a length of time soaking before it is placed in the mine, and it is said with great advantage. Another point is important where the shafts are dry, and that is the introduction of water thrown upon it by means of small jets; indeed, some kinds of wood last for an indefinite period in water, and old mines have been opened in which timber so placed has been found sound and good. I have seen timber under such circumstances which must have been *in situ* for 200 years. In the Hartz, where they are greatly subject to dry rot, small jets of water playing on the timber are understood to perform good service. It is a wise precaution in all mines subject to rot that when a piece of timber is affected to remove it at once, as cases are known in which dry-rot has spread like a contagion. One of the greatest preventives, it should also be remembered, is good ventilation.

There are other difficulties which arise from the intersection of levels. These have to be widened in the neighbourhood of the shafts for the accumulation of the mineral intended to be sent up, and these extra openings, without due care, greatly lessen the strength of the shafts. Suppose we have levels coming into a shaft from two sides, and in order to facilitate the work of removal it is desirable to have the roadways double the usual size as they approach the shaft. The difference of metallic mines and those on the stratified deposits is this: in the former they have a whole series of levels in which work is going on more or less extensively, and the winding will have to be done from first one and then the other. It is requisite, therefore, to have receptacles at the neck or lobby of each level, in which the material can be placed until the winding-engine can give attention to any particular level. This must either be provided for, or the mineral must be left to remain where it is broken down, until the level in connection with any working place can be emptied by the engine being ready for that particular level, and the effect will be that the ventilation will be greatly impeded by the piled up heaps; and it is often a source of quarrel between the men and the managers when the latter do not arrange for the removal of the material to the bottom of the shaft. In some collieries the removal is often part of the bargain with the men, and in others the company finds the trappers. In badly managed metalliferous mines these heaps are sometimes left for weeks, and the men are working behind great piles of the stuff without the fresh air being able to reach them, and over which the men have to creep to and from their places of work, as a snake or a worm would creep through. The necessity for preventing such a state of things need not be dwelt upon, and the means usually adopted is that of making what is called a "trip-plat" or "plat," as the case may be. For this purpose the level adjacent to the shaft is enlarged by cutting it down for a fathom or a fathom and a half below the line of roadway, which is continued over the opening supported by props, on reaching which the wagons, instead of discharging the material and filling up the shafts, are tipped and it falls into the space or magazine below, where it is kept until the engine can remove it. The cutting away, however, of so great a piece of rock in ground of a dangerous character is a difficult operation. If the rock is hard and close it may be done easily, and the corner above cut away slantingly, so as to let the rope from the engine away into the trip-plat. [Mr. Smyth exhibited models, and further illustrated this sort of work by drawings on the board.] If the ground be weak the mode of operation must be devised accordingly, and pursued with caution. Where the shaft is of considerable length we shall have it divided into two or three portions, which will have special struts in them to keep the ground sounder. The best mode of construction is to take it in detail—say, the two outside dimensions first, leaving the central intact to support the ground overhead. When these two are worked out and secured with dunnages based upon longitudinal side pieces, put in so as to keep up the roof while the other part is removed, then bit by bit the whole is secured by strong framings of timber. This is somewhat ticklish work, and none but the most trustworthy men should be employed, so that not a single piece of timber is taken away until another is

ready to put into its place. These "plats" are very important in tin and gold mines, where a large quantity of material has to be removed in order to yield a very small quantity of net produce. In the Hartz, where they do things on a large scale, they have extensive plats, and so are enabled to divide the atle from the ore in these stowages, sending the latter to the surface, and returning the former to the worked out portions of the mine.

We now come to the walling or steining of shafts, which is used to a great extent indeed where they are sunk through to the mineral to be worked, partly because they are vertical, and partly because the men have to go up and down in them, and so rendering it necessary that they should be secured in the safest manner from end to end. So in stratified rocks we frequently find the whole length lined from top to bottom. I have already mentioned that certain sandstones and limestones may be turned to good account for this purpose. In Somersetshire shafts are frequently lined with lias limestone, while in the North of England millstone grits are sometimes pressed into service for the shaft; but the greater part are lined with bricks, generally made to suit the sweep of the circle. In Westphalia brick is employed even when the shafts are rectangular, but curved at the sides. The advisability, on the contrary, of lining metalliferous mines is a question often raised in districts where stone is easy to procure, but is one which will always be decided by the peculiar circumstances of each mine. In nearly all cases they have to go some distance from the surface to get a good foundation, but the upper part of a shaft ought always to be lined with walling. Even when the shaft is sunk down from the surface in the rock the upper portion is always more rubby than it is lower down, and of a more unreliable and broken character. At the present day, in metalliferous mines the shafts are mostly secured with timber, and it is usual to run up the collar of the shaft above the surface, so as to get a good tip for the material which is raised from below. When a mine of this sort comes to be abandoned the timber becomes rotten, or is stolen, or both, and a collapse of the upper part takes place. Then, as the ventilation is cut off, the timbers below fall into decay, and the pressure at the sides causes the lower portions also to collapse, and thus be utterly useless. If at any future time it were found desirable to re-open the mine, besides occasioning a considerable subsidence at the surface. All this might have been avoided if from a solid foundation a suitable stone wall had been built as a lining to the upper part of the shaft. The old miners were wiser in their generation than we are in this century. If their small shafts were bad for ventilation they were good for other purposes, and exhibit some remarkable examples of magnificent walling. The stones are placed to allow the water to drain through, but so placed together that they offer a most efficient resistance to the side pressure. It would be a good thing if work were so done in these days. The only objection is that it would rather increase the expense, as modern shafts are larger and (as I have said) better for ventilation, but inferior in this respect to the work of the old miners. The history of mining shows that mines are generally only abandoned for a time from local circumstances, the poverty of the lode, or the exceptional condition of the metal market or the money market; and so, if they come to be re-opened the proceedings are greatly facilitated by the existence of a shaft in a workable condition.

In lining shafts with masonry it will be well at starting to examine the ground, to see whether it is necessary to line it all round, or only on one, two, or three sides. It may happen that it is necessary only to secure one side, and, indeed, it frequently happens that only two sides need be secured in this way. In these cases the work will be based either upon a cross beam or on a flat area. In dealing with difficult ground there are various modes of operation. Sometimes they take the form of a succession of arches, but what more frequently occurs is that the shaft must be walled all round, whether the shaft be four-sided, circular, or elliptical. In the case of a famous pit at St. Emile, it was lined with brickwork in the shape of a cone. The work is done by placing a couple of strong beams across the top of the shaft, and from them suspending a "curb," or a "cub," generally made of wood, but occasionally cast-iron, is used for special purposes. These are rings formed of segments of the circle represented by the shaft, having their joints in the direction of the radii of the circle, to resist the pressure from the sides. Then a second curb is put in, with studdles, or props, between it, and the first one strung together with what are called stringing deals, or thin planks. In this way a series of curbs are put in at regular distances, something like the frames of a sail in Cornwall, the whole being suspended from the beams above. Behind these curbs a backlog is formed by driving down planks, usually about 6 ft., close together in a bad ground, or at small distances when it is favourable. When they come down to a piece of ground on which the stonework may be based, the bed is cut with hammers and chisels, as if gunpowder were employed even in the smallest charges it would probably produce cracks and openings, which might cause portions of the bed to give way beneath the weight afterwards placed upon it, and so endanger the whole work. The bed should be water-tight, or at all events not of a porous nature. Upon this wall of brick-work is built up to the bottom of the lowest curb. When that portion of the shaft is completed the next is commenced, and so length after length of masonry or brickwork is put in, and in this way the walling is completed.

#### Meetings of Public Companies.

##### FERGUSON GOLD MINING COMPANY.

The half-yearly general meeting of shareholders was held at the offices, Gresham House, on Tuesday,

Mr. T. COOKE WRIGHT in the chair.

Mr. J. J. TRUMAN (secretary) read the notice convening the meeting. The report of the directors stated that the operations in California during the first six months of the company's possession of their mines—from July 31 to Dec. 31—have been carried on under great disadvantages, owing, first, to the unprecedented drought which prevailed during the summer and autumn; and, secondly, to the almost equally unprecedented storms of rain and snow in the early winter. At the Ferguson Mine it was found impossible to float down the river the timber required for building an additional mill, through the lowness of the water in the autumn, and through the violence and icy coldness of the subsequent floods, which men could neither stem nor endure while endeavouring to bring timber ashore; consequently, only the eight light stamps which were on the mine when the company bought it were used last half-year. At the Marklee Mine the want of water for treating the crushed ore was felt so severely that only 473 tons altogether were crushed there by twelve stamps in the six months, although 1116 tons were crushed in the same period by eight stamps at the Ferguson Mine. The directors, however, can congratulate the shareholders that, notwithstanding these drawbacks, the results obtained have exceeded those mentioned in the prospectus as likely to be obtained in the first half-year—a profit at the rate of 9 per cent. per annum on the capital of 30,000. This capital, provided for the purpose of buying and working the Ferguson Mine, has furnished the purchase-money of both mines, and all preliminary and incidental expenses, leaving a balance of 1187.13s. 8d. unexpended. The entire cost of working both mines, and of all the new buildings and works thereon, which it was intended should be defrayed out of capital, have been paid out of the proceeds of the mines; and besides the unexpended capital there remains in hand, as the balance of net profit on the first six months' working, a sum of 2929.17s. 8d., equivalent to a dividend at the rate of nearly 20 per cent. per annum. In view of the heavy expenditure for both the ordinary and extraordinary working cost which must be incurred during the present half-year, the directors consider it inexpedient to divide on the present occasion more than 2250/- (being at the rate of 15 per cent. per annum), and they propose to carry the remaining 679.17s. 8d. to a reserve fund, to be applied with the unexpended capital in such works of construction as are required. The amount of income spent on capital during the first half-year may be taken at 1092.10s. 1d. for Ferguson, and 142.14s. 4d. for Marklee—total 1235.4s. 5d. If these sums had been paid out of capital the net profit would have appeared at 2787.9s. 7d. from Marklee, and 1377.12s. 6d. from Ferguson, and 21s. 1d. altogether, and it would have sufficed to pay a dividend at the rate of nearly 30 per cent. per annum; and, treating these sums as part of the ordinary working charges, the Marklee Mine gives a profit of 2644.15s. 3d., and the Ferguson a profit of 2857.2s. 5d.; but in these accounts the cost of a large quantity of stores laid in for consumption and use during the winter and remaining on hand is included, as if it were money actually spent during the half-year. Thus, the Marklee Mine, which cost the company 7386.11s. 10d., has, in the first six months' working, returned 2644.15s. 3d. of the purchase-money, from operations little more than superficial, considering the very small portion of ground tried and the shallowness of the shafts, in comparison with the extent of ground included in the purchase. According to the manager's report, he had at the end of the half-year four times as much ore ground opened and ready to be taken away as at the beginning of it, and he could then supply ore at the Ferguson Mine sufficient for 20 to 30 more stamps. The directors have endeavoured in vain to obtain from the Committee of the Stock Exchange a quotation of the price of the shares on the Official List. The Committee have hitherto refused to grant the privilege on the ground that this is a small private company, that the prospectus was never advertised in the newspapers, and that the shares were not offered for public subscription. As advertising and offering (or pretending to offer) shares to the public were not required by the rules of the Stock Exchange when this company was formed, the directors feel that the company is hardly used in this matter, and they will not relax their endeavours to obtain the official quotation. It has been suggested to them that the object might be attained if the capital were increased, and some other mine were purchased, and advantages were taken of such an opportunity of extending the basis and operations of the company and of advertising it; but, though the directors will endeavour to procure for the company any mine of real merit which can be bought on very remunerative terms, they will not recommend the shareholders to purchase a mine on any other terms, even for the sake of obtaining the desired quotation.

The CHAIRMAN said that during the first six months of the company's existence the operations at the mine had been carried on under very great disadvantages—first, on account of the great drought; and, next, the extraordinary floods. They had suffered far more from the floods than from the drought, as the latter only prevented them realising more profit, whereas the floods had seriously interfered with the working of the mines—indeed, during the first two months of the year the operations were almost stopped, and it was very doubtful for some time if it would not have been better to temporarily close the mine; but Mr. Inch felt it was of so much consequence to the company to open fresh ground, and thus be enabled to crush much larger quantities during the next six months, that he kept the mine open, although at considerable expense. During the six months dry weather 12 stamps at the Marklee Mine had stamped 473 tons of ore absolutely nothing as compared with the capacity of the stamps. He did not know whether that mine had been sufficiently opened to have furnished a sufficient supply of ore to keep the stamps fully at work at that time; but every month the reserves were increasing, and the quantity available this half-year would be very much larger. The eight stamps at the Ferguson Mine had reduced 1116 tons of ore. Marklee was opening up very rich indeed—ore worth 12/- per ton; the ore during the past half-year from the Fer-

guson Mine had averaged 5/- per ton—the estimates in the prospectus were based upon 3/- per ton; and one of the most important features was that the shoots widened in depth. The auriferous quartz was found in shoots, and widened in depth, the increase already being from 18 in. to 3 and 4 ft. The veins became less rich, but that would be more than compensated for by the increased quantity of quartz they would yield—when there was sufficient quartz to crush it would be more profitable to the company than the smaller veins, although, of course, increased stamping-power would be required. The amount actually realised in profits had been 1235/-, but if the capital charges had been paid out of capital, as originally intended, the profit would have been 4165/- That would have enabled them to pay a dividend for the first half-year at the rate of 30 per cent. per annum—a very extraordinary result. (Hear, hear.) It was originally intended to provide a sufficient amount of capital to purchase the Ferguson Mine, and leave about 10,000/- as working capital; but instead of that they only had 8000/- with which to buy the mine, which had provided its own working capital, and enabled the directors to recommend a dividend at the rate of 15 per cent. per annum, and could have paid something more if it were prudent to do so. (Hear, hear.) The Marklee Mine cost the company 7386/-, and during the first six months returned a profit of 2644/-—considerably more than one-third of the purchase-money. However shareholders might think it would be better to have had a little more capital, they could not but be perfectly satisfied with the investment the directors had made in buying the second mine; the period was only postponed when he hoped they would have the full benefit of the capital. (Hear, hear.) He need hardly say that the expenditure during the next six months would be very heavy. The season was coming on when they would be able to make a road from the mine to the furnace, and another 30-stamps will be required. These they hoped to get completed during the present half-year, or very early in the next. Therefore, they expected the whole of the unexpended capital of 1100/-, and the 700/- proposed to be carried forward from this half-year, would be required. In consequence of the very great interruptions that had taken place during the first two months of the current half-year, they must expect the profits to be very much diminished, so that the present rate of dividend might not be maintained at the end of the present six months. The latest accounts from Mr. Inch were received this morning, as follows:—

*Sonora, Tuolumne County, California, March 16.—Since my report for the six months ending Dec. 31, 1871, the following work has been done—Ferguson Mine: The main tunnel has been drifted 62 feet. On the 7th instant we struck much more water and plenty of threads of quartz. The foreman thinks the third shoot of rock to be near at hand. We then had some 30 ft. more to drift to reach the point where I expected to meet it (as shown in section sent you in January). Ferguson shaft sunk 25 ft.; horse, 4½ ft. thick; hanging-wall vein, 8 in. thick; rock poor. Petherick's shaft sunk 19 ft. in January, nothing in February; vein looking well, 20 in. thick. I have explained to you in a former letter the reason this shaft is stopped for the present. The 100 ft. level, south shaft, drifted 110 feet. We have met with what we suppose to be Petherick's shoot 20 ft. earlier than expected; it has gradually increased in 20 ft. from nothing to 15 in. thick, looking healthy, but not so rich as the rock in the shaft, but we expect it to improve as we approach its centre. The winze 100 ft. north of Ferguson shaft is sunk 29 ft.; vein worth \$15 per ton. Mill crushed—From Ferguson shaft, 75 tons; Petherick's shaft, 28 tons; south bottom level, 30 from F. shaft, and 10 from P. shaft, 40 tons; winze in north bottom level, 45 tons; old stopes, south of Ferguson shaft, 146 tons; making together 344 tons, which yielded \$4390. The above did not vary in quality enough to make any difference in valuing it.—Marklee Mine: The 335 ft. level east drifted 98 ft., in 80 ft. of which we had a new shoot of low-grade rock, averaging 4 ft. in thickness (never seen anywhere above), and which looks as though it continues up behind Nichol's shaft in the footwall, but we have too much water at present to prove it. Wright's adit level drifted 130½ ft., about 80 ft. of which carried a vein 6 in. thick, and the balance from 3 to 9 in. thick. Wright's shaft timbered 60 ft. deep, on which is erected a new whim, and a house over it; the shaft is 28 ft. by 5½ feet. Mill crushed in January 175 tons, and in February 220 tons, making 395 tons, which yielded \$8111.61 c. From main stamps, best shoot, 55 tons, at (say) \$60 per ton, mixed ground on stopes, 90 tons, at (say) \$12 per ton; Wright's shaft stopes, 65 tons, at (say) \$25 per ton; Wright's adit level, 97 tons, at (say) \$10 per ton; 35 ft. level (new bottom level), from new shoot, 85 tons, at from \$12 to \$14 per ton.—General Remarks: We have passed through two months and a half of the severest weather I have seen in nineteen years in this country, from which several mines have sustained much damage. We have, however, by dint of perseverance and extra cost, escaped, and I hope our keeping the water out of each mine, and all our works open and in good working order, is worth more to us than we have spent in extra ropes, timber wood, horses, wagons, labour on roads &c. to accomplish it. As the Ferguson rock has not improved some of the shareholders may think I ought to have curtailed the expenses; but I consider the results to fully justify my prosecuting with all vigour the opening of as much ground as possible, especially to ascertain the extent and value of Petherick's shoot in the 100 ft. level, and that of*

They wanted to keep the capital as low as possible; and he was sure it would be very satisfactory to them all if they could possibly carry on the mines without asking for more capital. (Hear, hear.) He (the Chairman) moved that a vote of thanks be passed to Mr. Inch for his management of the company's affairs in California during the past six months. When they recollect that the two mines were distant from each other 110 miles, it was not thought that they could possibly have the full benefit of Mr. Inch's services; therefore, they must consider whether it would not be a great saving by allowing him to confine his exclusive attention to one mine alone.—Mr. PETHERICK seconded the proposition. He had every confidence that the manager fully deserved every encouragement from the shareholders.

The resolution was put and carried unanimously.

A cordial vote of thanks was passed to the Chairman and directors.

The CHAIRMAN, in acknowledging the vote, stated that the directors' stake in the company was so large that the question of fees was not a matter of so great importance as it might otherwise be, but his colleagues and himself had devoted a great deal of time and attention to the company, and would not like to have taken fees until it was in a successful condition.

The meeting then separated.

#### LUSITANIAN MINING COMPANY.

The annual general meeting of shareholders was held at the company's offices, Queen-street-place, on Thursday,

Mr. HENRY REEVE in the chair.

Mr. W. G. WILLIAMS (the secretary) read the notice convening the meeting, and the CHAIRMAN declared it duly constituted.

The subjoined report was then submitted:

The advance in the prices of copper and lead in the course of the last four months, amounting to upwards of 20 per cent., on the prices which obtained in former years, has already improved to a considerable extent the financial position of this company; and after a long period of depression, caused chiefly by the state of the metal trade, the directors entertain hopes that, at the prices now obtainable for our produce, these mines will continue to make a profit. The rise in the prices of the metals not having commenced until the later months of the past year, the accounts now submitted to the shareholders, which are made up to September 30, 1871, are necessarily affected in a very slight degree by this favourable turn in the markets. The greater part of the produce of the year 1871 was sold when the prices were still very low; but in consequence of an unusual detention of vessels at Oporto, the last two cargoes shipped fortunately reached England at a time when they commanded a greatly improved price, which is carried to the credit of the past year.

The profit of the Palhal Mine has nevertheless been during the year 1871 but small, amounting to 248L 13s. 9d.; for whilst the sales have been only partially affected by the improved price, the produce of the mine has suffered a considerable diminution, as will be seen from the following comparison of the results of the two past years:

12 Months. Tons. cwt.s. Sold at. Costs. Profit.  
To Sept. 30, 1870.. 1,159 8 ... £11,855 16 9 .... £10,927 6 5 .... £428 10 4  
To Sept. 30, 1871.. 896 3 ... 10,024 13 3 ... 9,775 19 6 .... 248 13 9

Decrease..... 263 5 ... £1,831 3 6 .... £1,151 6 11 .... £179 16 7

It will be observed that if the sum received for the ore has decreased, the cost of working the mine has been diminished in nearly the same ratio; and this has been effected, not by restricting the mining operations underground, but by greater economy in the employment of men, and in the financial business of the company. The actual reduction which has been effected in the cost of both mines amounts to about 700L In spite of the diminished returns of the Palhal Mine in the past year, if its produce had been sold at the price it now commands the profit of the mine would have been increased by about 1400L

Reference was made in the last report to the increasing returns of nickel from this mine, and it will be seen by the accounts that the proportion of this mineral is much greater than formerly. It has been found advisable not to dress it so high as before, which accounts for the lower sale prices realised per ton of ore. The Carvalhal Mine has not fulfilled the expectations which were entertained of it at the last general meeting. The increase in the rate of monthly returns was not maintained for more than two or three months afterwards, and the mine so far diminished in productivity during the latter part of the year's working that the profit which had been made for the first six months was absorbed by the outlay in the remaining half of the year. Nevertheless, for the first time, the costs of this mine have been met (within a trifling amount) by the value of the produce obtained, as will be seen from the subjoined statement, comparing the figures of the two past years; and the produce itself has increased by about one-third in lead and blonde, and in value:—

12 Months. Lead. Blonde. Produce. Costs. Loss.

Ts. cs. Ts. cs. To Sept. 30, 1870.. 206 6 .. 36 6 ... £3,383 12 5 .... £4,201 16 11 .. £818 4 6  
To Sept. 30, 1871.. 265 5 .. 98 0 ... 4,614 8 8 .... 4,653 4 11 .. 38 16 3

Increase..... 58 19 .. 61 14 .. £1,230 16 3 .... £451 8 0 Decrease loss..... £779 8 3

The exploratory operations in this mine are being pushed forward as rapidly as the present scale of working will allow, and, as the lead ore raised from it is of a high character, the advance in prices will materially help this mine if the quantity of ore raised can be maintained or increased. The mine agents cannot at this moment calculate upon a return in the current year, quite equal to the past, but they say—"Should we be fortunate enough to cut a good lode in any one of our ends it would soon make a great difference in the returns upon the present amount." The usual full details respecting both the Palhal and Carvalhal Mines will be found in Messrs. Taylor's report, annexed hereto. The directors have to report that since the last general meeting they have forfeited 132 shares, upon which calls remain unpaid. This reduces the total number of shares to 7707.

The balance at the credit of the profit and loss account last year] £714 16 0  
amounted to .....  
This has been increased by the sum of ..... 415 6 10

So that the present credit balance is ..... £1130 2 10

The above increase to the accumulated profit is made up as follows:—  
Profit on Palhal, 12 months, to Sept. 30, 1871 £248 13 9  
Less loss at Carvalhal, ditto ditto ..... 38 16 3

Add profit on realising stock of last year ..... 209 17 6

215 14 6

425 12 0

10 5 2

Balance of profit for the year ..... £415 6 10

Although this balance of 1130L 2s. 10d. is not a large one, yet, having regard to the present condition of the mines, and to the expectations reasonably entertained that the prices of copper and lead are not likely to fall back to their recent state of depression, the directors were of opinion that it was their duty to divide at once a portion of the accumulated profit; and they hope that, circumstances remaining the same, it will be in their power to continue the payment of dividends. They have, therefore, set apart a sum of 667L 5s. 1d. for division, as follows:—

10 per cent. on the total sum to reserve fund ..... £66 14 6

34 per cent. on the remainder to Mr. Pinto Basto, as per agreement, 204 3 7

Dividend of 1s. per share, payable April 15 next, and Income tax} 396 7 0 thereon .....

£667 5 1

The directors are glad to state that all outstanding accounts with the grantor of the mines have been adjusted, and that no liability exists in regard to them beyond what is comprised in the present balance-sheet. The retiring directors on this occasion are Messrs. Hadow, Henty, and Judd, and they offer themselves for re-election. Mr. Roberts, the retiring auditor, offers himself for re-election.

The CHAIRMAN said that the report contained so full a statement of the condition of the undertaking, that he had very little to add to it. They were happy to meet the shareholders under more favourable circumstances than they had done of late years, and he might congratulate them that if the mine was not producing a larger quantity of ore the value of the produce was greater. The opinion of the agents is that the returns for the present year will be about equal to those of the past; and every effort will be made to increase the quantity of produce to be brought to market. He ought to mention that owing to the date to which the accounts were made up they did not get the full advantage which the recent great rise in the price of metals would have shown, and some had thought that the accounts might be made up to a date nearer the day of meeting; but it appeared to him that if they wished for certainty in the accounts presented at the spring meeting they might take a period somewhat remote, as otherwise a certain portion of the figures would have to be estimated. He hoped that explanation would be satisfactory to the meeting.

Dr. FRANCIS enquired whether it required six months to prepare the accounts, as the time certainly appeared to him a very long one?—The CHAIRMAN said the last account sales had only been received three weeks since.

Mr. RICHARD TAYLOR explained that it was not the making up of the accounts, but the shipping of the produce, that caused the delay. In this instance the delay had been fortunate, as they had got a better price for the produce; but upon another occasion the reverse might happen.

The CHAIRMAN added that the objection to shortening the time between the closing of the accounts and the making up of the balance-sheet would be seen by one of the items which still appeared—"Add profit on realising stock of last year, 215L 14s. 6d."—and which some other time it might be a balance the other way.

Dr. FRANCIS remarked that in the Spanish mines they brought the accounts within three months of the date of the balance-sheet.

Mr. R. TAYLOR admitted that, but would remind him that many of the figures were estimated, and also that the returns were more easily realised.

Dr. FRANCIS suggested that the directors' names should be placed at the head of the report, and thought that the amount charged for interest appeared high.

Mr. R. TAYLOR explained that the names of the directors were inadvertently omitted from the report, which would not occur again. With regard to the interest, they only paid a fixed rate of 5 per cent., and they must recollect that the only way to pay cost was to borrow money on the security of the ore itself. In this particular instance the increased price realised had more than covered the extra interest paid.

The report and accounts were then unanimously carried, and the CHAIRMAN requested Messrs. Taylor to make a few observations upon the position of the mines.

Mr. R. TAYLOR said that their accounts of the mine were contained in the report to which they had little to add. The falling off of the produce of the mine was owing to the gradual working out of the shallow levels. It was gratifying, however, to be able to state that the engine-shaft had never been without ore, and that at the 150 fms. level the mineral appeared to be spreading out under the poor ground; the lode seemed to be improving considerably. Under the 150 fms. the lode is turning out 4 tons per fathom, which was very encouraging. The depth of 150 fms. was very small, and with present prices for metal even the

present value would be remunerative. During the last few years they had had discoveries of ore at the River shaft, east of the river. They had an immense extent of ground in that direction, and the lode was large and promising; they, therefore, thought that Palhal might continue profitable for many years. At present prices the returns of last year would have given a profit of 14,000L on Palhal. At the lead mine they were decidedly disappointed; they made a profit for some months, but it then fell off, and they barely met their cost; in fact, they made a loss of 38L There was, however, much ground to try which could be tried very cheaply. They were not without hope in Carvalhal, though at present there was nothing very bright there.

Messrs. P. D. Hadow, R. Henty, and J. P. Judd were then re-elected directors, and Mr. Charles Roberts auditor, and the proceedings terminated with the usual complimentary votes.

#### MAMMOTH COPPEROPOLIS OF UTAH.

A meeting of shareholders was held, on Monday, at the offices of the company, 25, Moorgate-street.

The Right Hon. Lord CLAUD HAMILTON, M.P., occupied the chair, and stated that the meeting was held in accordance with the Act of Parliament. There were but few facts to communicate. Their manager had been snowed up en route, and for the time work had practically been suspended on account of the almost unprecedented fall of snow. The title to the property had been approved, the purchase had been completed, and Mr. Fowler, the engineer, had telegraphed that he was shipping ores, and was well satisfied with the prospects of the company. With reference to the shares, there were 1450 still to be issued for completing the working capital and the erection of smelting-furnaces to reduce the ore to a regulus, according to Mr. Fowler's advice.

A SHAREHOLDER wished to know whether the 25,000L set apart for working capital and smelting works was considered sufficient?—One of the DIRECTORS replied that that was the opinion of their manager, the property being more of an open quarry than a mine.

It was stated for the information of the meeting that some of the largest shareholders, at their own cost, sent out a gentleman of great experience, and whose opinion no money could purchase, to make a private inspection of the mine; a telegram from him had arrived that "the mine was developing splendidly."

Mr. CRAWFORD (director) remarked that the price of copper had increased so much since the purchase of the property that the mine must have now an additional value of at least 25 per cent. Mr. Fowler was instructed to send home all ores over 25 per cent., and it might now pay to ship ore of lower grade. Information would from time to time be sent to the shareholders, and as early as possible.

Mr. ELLIOTT (a director) was of opinion no details worth communicating could be received under two months, owing to the delays caused by the great snow-storm, and real work at the mine had only been commenced about three weeks since; but they had the significant fact before them that they had commenced shipping ores.

The re-election of the present members of the board was carried unanimously.

Dr. BISHOP stated that he had made a very close inspection of the mine a short time ago, and he held a conditional contract from the vendor, with the view of purchasing the property for himself and friends, and that he was greatly disappointed when this company bought the property. He had now an interest in the company, and his opinion of the property was such that he believed even mismanagement could not prevent its returning very large profits. The former owners only sent away ore of high percentage, and there was a large accumulation of ore on the dump, averaging 15 per cent.; and he considered it would be worth putting up a furnace to reduce ores of this grade; the high grade ores (of which there was a vast extent) should be sent to Swansea.

The re-election of the auditors was carried unanimously.

The CHAIRMAN, in reply to a vote of thanks, remarked whatever news arrived, whether good or bad, should be communicated to the shareholders. He was glad to find, from the questions put, that they took such a lively interest in their property; he hoped this interest would continue, for apathetic shareholders generally are careless directors.—The proceedings then terminated.

#### MARBELLA IRON ORE COMPANY.

The statutory meeting of shareholders was held at the Cannon-street Hotel, on Monday,—Mr. GEORGE ANDERSON, M.P., in the chair.

The SECRETARY read the notice convening the meeting.

The CHAIRMAN said that this was the statutory meeting required within four months of the formation of the company. The directors had waited till the last day, although they had not a great deal to report. The company was formed for the purpose of purchasing the Marbella Iron Ore Mines, belonging to Messrs. Malcolm, of Glasgow;

the directors in negotiating the purchase had made extremely good terms for the public. In conducting those negotiations they did not take up the scheme propounded by the vendors, and lend their names to it—they negotiated every item put forward by the vendors. The price to be paid for the property was 250,000L, including the mines, railway, and everything connected with the concern. The first arrangement made was that the vendors should take of that amount 150,000L in fully paid-up shares, and the remainder (100,000L) in cash, guaranteeing minimum dividend of 15 per cent. per annum for five years. Supposing the concern turned out unfortunate, and did not pay any dividend at all, at the end of the five years the Messrs. Malcolm would have paid back to the shareholders 12,000L in excess of the 100,000L, in addition to which the shareholders would possess one-half the works for nothing. If, on the other hand, it turned out a prosperous concern, Messrs. Malcolm would be in the position of having received a good price for their property, while the shareholders would have acquired it upon reasonable terms. It turned out, however, that those terms of purchase were inconsistent with the rules of the Stock Exchange, so far as the obtaining a quotation in the Official List was concerned; therefore, the original bargain was modified to the extent of 150,000L, the Messrs. Malcolm only taking 100,000L in shares; the other conditions were in no way altered. The position, then, was that at the end of five years Messrs. Malcolm, if the concern should be unfortunate and paid no dividend, would have paid back to the shareholders 150,000L, equal to 75 per cent. of the money paid, so that under those adverse circumstances they could only lose 25 per cent. of their original capital; and if five years' interest were added to that, the total loss the shareholders could possibly sustain would not exceed 30 per cent., and Messrs. Malcolm would have paid back every penny they had received, and given to the shareholders one-half their property. That was the only one point which he had heard objected to by the public—he hence considered it necessary to make these remarks. They had been told the guarantee dividend was not an absolute guarantee—that was true, but it was abundantly good for the purpose. They had Messrs. Malcolm's personal guarantee, which was very good; in addition they had 50,000L worth of stock, and the royalty of 6d. per ton was to accumulate, and not to be paid to Messrs. Malcolm until the guarantee dividend was completed. (Hear, hear.) With regard to the present position of the company, the purchase money had not yet been paid, save one instalment under certain restrictions, conditional on being repaid if the titles were not entirely completed. They had not the slightest reason to doubt all would be completed—indeed, a telegram had just been received from their solicitor, whom they had sent over, that everything was in order. The engineer's report was to the effect that everything was very satisfactory, that the railway and works were of the most substantial description, the only thing not in operation being the wire-tramway, which was in course of erection; the works, however, were progressing irrespective of it. A few weeks delay had been occasioned by the earthquake, which had caused two landslips, and had interfered a little with the works. Already between 13,000 and 14,000 tons of ore had been shipped, although they commenced only at the end of January; that was a small quantity compared with what they ought to have shipped in two months, but the directors considered it tolerably satisfactory for a beginning. One of the Messrs. Malcolm was out there, pressing forward the work of getting the ore sent over at a much more rapid rate, and had arranged to ship it for the next year on reasonably good terms. Contracts had been arranged for the sale of the ore to the amount of 184,000 tons, but of that amount 24,000 tons were included in contracts taken over from Messrs. Malcolm, entered into by them some time since; in consequence of the present high prices that 24,000 tons would not yield a profit, but would not incur any loss; 28,000 tons would leave some profit, and the remaining 132,000 tons were new contracts taken at the high prices of the day, and would yield a good profit to the company. (Hear, hear.) They believed they could make large contracts if it were deemed desirable to do so; but in the rising market they did not think it desirable to over-contract themselves. On the 13,000 tons there was not much profit, nor could he hold out any prospect that in the two months' working an appreciable amount of divisible profit had been realised; but there was every reason to believe that during the remaining months of the year they would more than make up any short-comings up to the present time. The shares were entirely allotted: in fact, having been applied for immensely in excess, it was not possible to give full allotments. There were about 400 shareholders of most respectable names, and the directors, in allotting the shares, considered the character of the applicants, and selected those not likely to sell, but retain them as a permanent investment;

consequently, there had been but few transactions in the shares, and those only at about 2½ prem., and any shareholder who wished to sell could obtain that price. The board, however, preferred seeing the present class of steady holders. (Hear, hear.) There was only about 3400L unpaid upon the shares, all of which was perfectly good.

The SECRETARY (Mr. J. R. Clipperton), at the request of the Chairman, read a letter and telegram received from Mr. C. O. Ellis, the company's solicitor or tax, paid to the Government was of smaller amount than named by Messrs. Malcolm—20L The mines are registered under the new law of mining, which seems to him much more advantageous than the old code. As to the railway, he had been over the whole of the plains with the Spanish lawyer, and compared them with the plan made by Mr. Moore, the company's engineer. The election to the Cortes had caused much delay. The telegram stated that Mr. Ellis and the Spanish lawyer had been over the whole of the property with a surveyor, and the result was in every way satisfactory.

Mr. CLIPPERTON enquired if Englishmen were employed at the mines?

Mr. ELLIOTT said the manager was an Englishman, but the workers were Spaniards.

A SHAREHOLDER said that the statement was so completely satisfactory and exhaustive that scarcely anything was left about which to make any remark. There was no doubt they possessed a very good property. He had an opportunity of speaking with Messrs. Malcolm upon the subject. He knew something of the iron trade, and that it was at present in an unprecedented prosperity, and that there seemed reason to hope would continue, at any rate, for two months. At the same time, knowing that this company possessed a good property, and an unlimited quantity of iron ore, he asked if it would be wise to accept all contracts they could at the present prices? There might be a further advance, but the present rates were so favourable and profitable that it would be to the interest of the company to accept as many contracts as they could possibly obtain. As they had an unlimited supply of ore, advantage might be taken in subsequent contracts of any improved price that might take place.

The CHAIRMAN said the directors fully agreed with that suggestion, of necessity be guided by the practicability of getting the ore away from the mines. The wire-tramway was not completed, which was one of the obstacles to the works, and as many contracts would be taken from this forward, as was possible by the means of delivering. One contract for 100,000 tons extended over three years.

Mr. GROVE asked what quantity of ore it was estimated could be brought down by the tramway?—The CHAIRMAN said about 800 tons per day.

A unanimous vote of thanks was passed to the Chairman and directors for their attention to the company's interests.

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set roaster, is a much more costly article. But what, it will be asked, are the shareholders to get for this additional expenditure of \$8000? I answer that I have every reason to believe that within twelve months of the erection of the machinery, which will occupy four months, I shall have shipped or sold bullion to pay a dividend of 20 per cent. And I say so because I shall then be able to run through 12 tons of ore per day. Now, if you estimate the ore at only \$10 per ton, and I show you on the table ore taken from the shaft worth \$800 and upwards,

12 tons of ore at \$10 per ton .....	240
Extraction and reduction at \$20 per ton .....	240
Net profit per day .....	240

200 working days of \$240 per day .....

But a 20 per cent. dividend on your gross capital of 60,000,000, sterling is

only 12,000, or .....

\$12,000

Surplus..... \$12,000

The enormous out-turn from the Comstock lode during the ten years of its active production amounting to \$130,000,000 has been from ore under the value of \$40 per ton. Your Acacia lode, which assays \$77 per ton from some of its outcrops, has not yet been tapped; and the developments on your Buckeye lode are quite superficial. Let me conclude by assuring you that, whatever may be your resolution as to furnishing the additional working capital, my faith in the mines remains unchanged—a faith shared in apparently by the old miners of Silver Mountain, who have begun to buy up the real estate in the adjoining county seat, in consequence of the developments in your mines.

Mr. ELLEBERTON asked if they had any water-power.—Mr. CHALMERS replied that they had sufficient water-power to run a 30-stamp mill all the year round.

Lord POULETT stated to the meeting the manner in which it was proposed that the money should be raised, of which several shareholders expressed their cordial approval, inasmuch as it obviated the necessity of either issuing preference shares or increasing the capital of the company.—Mr. EDWARD SMITH, of Manchester, asked if the shareholders would have the option of priority given to them—Mr. SYME said—Yes, if they applied at once, but a circular would be sent to them affording every information upon the subject.

The retiring directors Lord Louth and General Campbell were re-elected. The auditor of the company was also re-elected.

A vote of thanks to the Chairman, proposed by Mr. STEPHEN E. COMYN, and seconded by Mr. J. J. KINGSFORD, concluded the proceedings.

#### GREAT LAXEY MINING COMPANY.

The half-yearly general meeting of shareholders was held at the London Tavern, on Wednesday, all the directors being present, Mr. G. W. DUMBELL in the chair.

The CHAIRMAN read the report of the directors, as follows:—

The report of the managers will give the shareholders a full and clear account of the workings and present state of the mine, which, upon the whole, may be considered fairly satisfactory. The directors regret to state that they have not yet been able to procure a new lease of the mine upon such terms as they consider fair and reasonable, and the Hon. Mr. Howard, Commissioner of Woods, &c., having declined to modify the terms proposed by him, the directors have brought the matter before the Board of Treasury from whom the hope to receive that relief which they have failed to obtain from the Office of Woods and Forests. The shareholders are, individually, in possession of the terms proposed by Mr. Howard, which are considered highly objectionable. The decision of this matter is of the utmost importance to the company, and the directors have given the strictest attention to the matter, and will continue to do so, in hope of obtaining a favourable reply from the Treasury; and, although fearing to express an opinion that may lead anyone astray, they do feel great confidence in the fact that the shareholders will be informed immediately after it is known,

The CHAIRMAN said: Gentlemen, I wish you thoroughly to understand the meaning of the last paragraph in the directors' report, which is that I undertake, as chairman, not to communicate the result to any shareholder, either directly or otherwise, until a short statement of the facts is posted to every shareholder, so that you may all stand upon the same footing, and there may be no possibility of giving a preference to one over the other. (Cheers.)

At the request of the Chairman, Mr. W. ALLEN read the following report from the managers of the mine:—

April 9.—In again submitting to you our half-yearly report, we beg to state that the 235 fm. level has been driven north and south 5 fms., in a lode worth about \$10 per fathom. Our progress at this level has been slow, partly in consequence of the hardness of the lode, and partly from the quantity of water we have to contend with in this level. The 220 fm. level has been driven north 14 fms., and has unwatered the lode up as far north as Dumbell's slide, enabling us to sink the Welsh shaft as well as two sums below the 210 fathom level dry. The lode in this 220 has not proved so good as was anticipated, still there is a portion of it standing on the east side of the level, which we expect will prove to be the best part; but for the sake of progress we are pushing the end on, on the west part of the lode, to hole to the sum coming down from the 210 fathom level, as speedily as possible. We expect this sum will be holed to the end in about four months from this time, and when done there will be a great many fathoms of good ore ground laid open for stops. In the 210 the lode in the sum above referred to, which is down about 7 fms. below the level, is worth 60¢ per fathom. Soon after your last meeting the flat-rods in the 200 fm. level, to pump the water out of the Welsh shaft, were completed, and no sooner had this been done than the shaft was drained by the 220 as above stated, and the sinking was immediately resumed. In consequence of having the advantage of dry sinking our progress has been good, and the shaft is now down about 6½ fms. below the 210 fm. level; but as there are only 4 fms. between the bottom of the shaft and the 220 we expect we shall soon overtake the water, and have to apply the rods and pumps. The lode in the shaft is worth for lead and blonde 5¢ per fathom. We have recently commenced a sum further north than the Welsh shaft, near to Dumbell's slide, in a lode worth 140¢ per fathom. This 210 fm. level end, driving north, is worth 50¢ per fathom, and is now well up to the sum coming down from the 200, to which we expect to hole in the course of a week or two. We have not much to report at the 200 fm. level, the driving of the end having been in abeyance for some months past; but as soon as the sum above referred to is holed to the 210 the driving and the side shooting of the lode, which is placed at 18 ft. wide, will be resumed, and we shall also be able to let another good stop in the roof of the level. The reason the driving has not been resumed sooner is that the shots from the end would greatly endanger the men's lives who are working in the sum. The driving of the 190 fm. level north has been continued uninterruptedly, and has been advanced during the past six months 9½ fms., a lode varying in value from 40¢ to 70¢ per fathom; the end is at present worth fully 70¢ per fathom. The 180 end has been driven north 9½ fms., in a lode worth on an average 60¢ per fathom; the present end is not worth more than 40¢ per fathom, but we expect it will again improve shortly. Since the hoisting of the rise above the 165 north to the sum sunk from the 145, the driving of the end north, and also the shooting off of the hanging part of the lode, has been resumed; the lode in the end is worth 40¢ per fathom, and in the side coming on behind the end 60¢ per fathom. There is a horse of rock between the two parts of the lode about 3 ft. thick. The hoisting of these two northernmost ends in the old mine has given us good ventilation, and opened out a great deal of moderately good ore ground, but we would here state that we do not expect to increase the ralings of ore thereby, seeing that some of our best ground in the 165 has been taken away. The 155 fm. level end has been driven in all 17 fathoms through unprofitable ground, but the end at present is presenting a better appearance, and is now worth 30¢ per fathom, and we expect a further improvement as we approach the slide, in the vicinity of which we have had our richest bunches of ore in the levels below. The sum below the 140 is being holed to the 165, we can resume the driving of the end at any time.—South Ground: Since your last meeting we cut into a good bunch of copper in the 190, driving south, worth from 3 to 4 tons per fathom, and free from jack and sulphur, but we have recently met with another branch or part of the slide, which has cut it out again for the time; the ground around the slide being soft and heavy, it has taken a good deal of work and timber to secure it, and keep the level open. The 165 fm. level end is poor, and the same may be said of the 60 fm. level, driving south.

Dumbell's: The engine-shaft is now down about 7½ fms. below the 170; at present there is no lode in the shaft, it having been thrown to the east by the heave of the slide. We expect it will come into the shaft again at the 185, which will be our next level. The shaft, previous to the lode having been thrown out of it, was worth 120¢ per fathom. The lode in the 170 north is improving, worth 60¢ per fathom, and we believe it will further improve as we get away north out of the influence of the slide. The same level has been driven 17½ fms. south from shaft, in a lode varying in value from 50¢ to 120¢ per fathom. The lode in the end is worth 100¢ per fathom, but the air being bad we have been obliged to stop the men and put them to rise against the sum coming down from the 155 for ventilation. There are about 2 fms. more to rise and sink, and we believe this will be holed in less than a month from this time, when the driving of the 155 south and also the 170 south will be resumed. The lode in the south end at the 155 is hard and slow for progress, worth about 20¢ per fathom. About 10 fms. north from shaft at the 155 we have made a cross-cut through the lode, and find it to be about 10 ft. wide, and worth for lead and blonde about 40¢ per fathom. In this cross-cut we have commenced a sum to ventilate the 170, and to cut out a fresh section of ore ground for stops. The end driving north at this level is worth for lead and blonde 35¢ per fathom. We have a lode gone down in the sole of the 140, about the same distance from the shaft as this end, worth 100¢ per fathom. The lode in the 140 end driving north is 4 ft. wide, and worth 30¢ per fathom. The 125 end north is unproductive, and nothing has been discovered worthy of notice in the trial cross-cut driving east at the 110. At Agnewish we have nothing new in the shallow adit, and in the main day level north the men are cross-cutting to see if another and main part of the lode may not be off in the eastern side. We have proceeded with the new reservoir as well as the season would permit, and expect now to make increased progress. The turbine at Dumbell's is completed, and doing its work to our entire satisfaction. At the Glen level the cross-cut is still going forward, but nothing met with until lately, when a stream of water was tapped, which may indicate a near approach to the lode.—Glenroy: The engine-shaft is now down 13 fms. below the 50, and we purpose sinking it 2 fms. deeper to make the next a 65 fm. level; we can accomplish this sinking in about a month from this time. During the past six months sinking the lode has produced good lumps of ore, but we have had nothing like a leading or ore-bearing part, still we expect to find it more defined and more productive in driving north and south from the next level. The 50 has been extended north from the engine-shaft 16 fms., and is now as far north as where the lode produced ore in the levels above; but, looking at the dip of the ore northwards, we expect we shall have a little further to drive before the end will become profitably productive.

During the past half-year we have had a small quantity of lead and blonde from this level, and the lode in the end is presenting a better appearance than it has done throughout the whole of the driving. From what we have stated it will be observed that no marked or special changes have occurred during the past six months, and, looking at our present prospects, we have no hesitation in repeating that the mine will continue to give lasting returns.—R. ROWE, J. BARRELL.

The CHAIRMAN: I will now make the usual motion.—That the ac-

counts being taken as read be adopted and passed, and that the reports which have been read be printed and forwarded to each shareholder.—Mr. PETER WATSON seconded the resolution, which was put to the meeting, and carried unanimously.

The CHAIRMAN then again rose, and said it became his duty to address a few remarks to the shareholders, and he dare say he might disappoint many gentlemen present if he did not go so fully as they might expect into the matter in which they were all so deeply interested, or, at least, if he did not convey what he had to say in terms so strong as they might think the subject deserved, and as he might think would be very advisable in case it was prudent for him to make use of such terms. As matters now stood, however, he had only to put before the meeting, as plainly as he could, the position in which the company now was, with this reservation, that he could not give full details with respect to the renewal of the lease, because negotiations in connection with that important matter were still pending, and, as a minister would say in the House of Commons, the public service would be injured by exposing exactly all the transactions at the present time. (Hear, hear.) However, the shareholders would have, at the proper time and place, the opportunity of hearing every individual particular from beginning to end. As was stated in the report, the directors came up to London on Feb. 21. Many months previous to that, on July 13, 1871, he addressed a letter to Mr. Howard, of the Woods and Forest Department, applying, on behalf of the directors, for a new lease for 31 years, upon the same terms upon which it was held at the present time. That letter must have contained something very ominous and difficult to understand, for it was not convenient for the honourable gentleman to whom it was addressed to decide upon it until Jan. 16, 1872. He (the Chairman) did, on several occasions, venture to ask the honourable gentleman whether it would not be convenient to let the company have a reply, and the answer was—"We are not yet prepared." Of course, the directors could not push the matter further. At length, as he had stated, an answer was received, and the letter contained proposals upon which Mr. Howard was willing to grant an additional lease, not for 31 years, but for 21 years. The whole board, as he had stated, came up to London on Feb. 21, and he, as Chairman of the company, addressed a letter to Mr. Howard, asking for an interview, in order that the directors might have an opportunity of verbally expressing their views. Mr. Howard granted an interview on Feb. 23, and the directors were with that gentleman two hours, and laid their views fully before him; and Mr. Howard requested the directors to put in writing the nature of their objections to the proposals which he had made. The directors did so, and the letter, not a very small one, containing the objections, was delivered at the Office of Woods and Forests on Feb. 24, but it was not till March 17 that a communication was received (in answer to a private letter which he himself addressed to Mr. Howard) stating that a reply would be sent next day. On the 17th of March, therefore, the directors received a reply, and that reply, which was a very lengthy document, confirmed all that Mr. Howard had required by his letter of March 16. Previous to the reception of this reply he (the Chairman) had prepared a few facts and figures, not for the purpose of forwarding them to the shareholders, for he did not imagine that Mr. Howard would insist upon the whole terms he had proposed, but for making altogether a different use of them for the benefit of the company. In truth, those facts and figures would never have been sent to the shareholders if the directors had been enabled to come to a satisfactory arrangement with respect to the lease; but when they found by Mr. Howard's letter of March 16 that they could not come to terms with respect to the lease, the directors had 60 copies struck off, sending one to each shareholder. He thought it right to mention that fact, and he hoped the shareholders would be kind enough to discharge from their mind any idea that anything had been kept back from them. (Hear, hear.) As soon as the directors could communicate the facts to the shareholders they did so. In consequence of the reply which had been received from Mr. Howard, an altogether different course of tactics had been pursued by the directors. He could not enter into details of what these were in the present position of affairs—suffice it to say that the question had been mooted before almost all the leading mining and smelting proprietors and dealers in metals throughout the United Kingdom; and he had the satisfaction of stating that from the highest to the lowest he had received but one opinion, and that opinion condemned the system and principle endeavoured to be established by the Government as calculated most seriously to interfere with one of the greatest branches of British Industry—the mining, smelting, and producing of metals throughout the United Kingdom. (Cheers.) He held in his hand (holding up a large paper) a few of the papers which had been drawn up and forwarded to various quarters since he had been in London; and he could only say that if any of the shareholders had gone through the labour which he himself had done in connection with this matter he should pity them, whether they pitied him or not. (Hear, hear, and laughter.) It appeared to him that the Government was trying to introduce a policy by establishing a principle in the Isle of Man (which was unrepresented in the British Parliament) which, if once established, was admitted by all the best men he had consulted with as being simply the commencement of establishing the same principle throughout the United Kingdom. (Hear, hear.) Well, what would be the effect of that? They all knew what was meant by the phrase "embarking in a mining speculation"; he was not now referring to men who bought shares in a mining enterprise—it was a very different matter. But there must be a commencement to every mine; and why wait it that time out of mind, in every part of the kingdom, the term "adventurers" had been given to those persons who risked their money in a venture to try and find a mine where no mine was before known to exist? Why, the reason was plain—it was because of the risk and uncertainty which attended such an undertaking. If the principle now attempted to be laid down by the Woods and Forest Department were established, where could the men be found who would become "adventurers" who, he might say, would venture their money to find a mine? (Hear, hear.) If a number of persons spent 20,000, 30,000, or 40,000, you must give me one-fourth of the profit if they failed to find the lode; but if, on the other hand, they were fortunate enough to discover a mine, and endeavoured to make money of the risk by forming a company to whom to sell the mine, the Crown, under this new principle, would at once say, "All right, gentlemen, you are going to get 40,000¢, you just give me 10,000¢." You must give us one-fourth of the profit you make out of the speculation." Then, again, many mines paid a royalty, and that royalty had to be paid on all ore which was obtained, although a shilling profit might not be paid to the shareholders; and that royalty was paid to the lord of the mineral, although he never ran a risk of any kind. Now, he would ask, was not that a very severe mode of loading property? Was not the risk already sufficiently great, without endeavouring to clog the "adventurers" in a variety of such terms as was sought to be imposed upon them now? Now he come to another point, and that was the venture which was at present being made to increase the royalty; and he could only say that it was very hard that, because the company had in the past few years been successful, an attempt should be made to increase the royalty, as was proposed, from 1-15th to 1-12th. It had always been a principle, time out of mind, that mines should be worked by the payment of a royalty, the amount of such royalty to be decided between the lessors and lessees; but certainly the principle which was now attempted to be established was one upon which the company would not submit to, unless forced by the very highest authorities. They were paying 30,000¢ a year dividends, and out of that there was 20¢ for dead rent; and if they did not get 1 ton of ore they must pay that 20¢ for dead rent. In addition, they had to pay royalty upon everything, and in addition to that royalty they must pay one-third of all the profits beyond 10,000¢ a year. He could not for one moment believe that a system would ever be allowed to be established in this country which would deter men from investing their money in a branch of industry which was of the greatest advantage and importance to the United Kingdom. (Cheers.) 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lode now appeared to be another lode. In the 38 fm. level a cross-cut was put out, and after driving 5 fathoms the lode was reached; at first it had very little ore, but its width gradually increased to 1 ft. wide; and, according to a letter he received that morning, "the lode in the 38 cross-cut still looked exceedingly well, with nice ribs of ore in it." Therefore, from this point alone there was the prospect of greatly augmenting their returns; but he had been so often disappointed in the old mine that he hesitated to express any confident opinion. It was, however, fair and reasonable to infer that from this and the old mine the returns henceforth would be considerably increased. This new lode was parallel with an old one, but they would form a junction northward; it would probably form a separate lode south. If this lode maintained its present character and quality, it would be attacked in the present levels by short cross-cuts. Its general condition was all that could be desired, and it might prove to be the main lode of the mine.

The CHAIRMAN said that at their Great Laxey meeting, yesterday, a long discussion took place in regard to the obtaining a renewal of the lease from the Commissioners of Woods and Forests. He need not here recapitulate the unreasonable and inequitable terms which the representatives of the Crown were attempting to exact, but he might mention that the Great Laxey were making an application to the Treasury by which it was hoped Mr. Howard would be induced to moderate his terms. The attempted exaction was a suicidal policy, and if persisted in must militate against the mining interest generally, and especially in the Isle of Man. At Great Laxey Mine alone they employed 800 to 1000 hands. The Great North Laxey Company had fortunately obtained a renewal of its lease for 21 years from 1870, at a royalty of 1-12th; but, if in the one case the representatives of the Crown claimed a participation in the profits, it was only at least equitable that in the Great North Laxey they should participate in the loss. (Hear, hear.) If the Great North Laxey should be in a dividend-paying condition the proper course would be to apply for a renewal of the lease some five or six years before the expiration of the lease, and if the representatives of the Crown did not choose to re-grant upon the same terms there would be plenty of time to do with the property as was thought best. (Hear.)

Mr. MURCHISON said that the Great North Laxey had been at work for 17 years, during which time capital had been expended upon it to the extent of £36,500, as well as the money obtained by the returns of lead, amounting to £14,000, making together £50,500. The interest on which, at even 5 per cent. per annum, would add considerably to the amount. During that period, the Crown, without incurring any risk, had received in 1250£, whilst the dividends paid to shareholders had been nil. Although Mr. Howard was nominally the chief of the department in which such business was transacted, there was a Mr. Souray, whose official position it would be interesting to know, as he seemed to do—at any rate, in talking—the work, and seemed to carry his stubbornness of opinion to a ridiculous length. Had the Great North Laxey Company been asked a year ago similar terms to what were now attempted to be imposed on the Great Laxey Company, it is all but certain that they would not have been accepted, and that the mine would have been stopped—to the injury of the Island, the working minor, and the Crown itself. The present action of the Commissioners of Woods and Forests was a severe blow to all Crown mining property.

Messrs. W. C. Butler, Wm. Jardine, Captain McGregor, James Spittal, Peter Watson, and J. H. White, were re-elected the board of directors for the ensuing year, and Mr. Brandt was re-elected auditor.

A resolution was passed fixing the next annual meeting in April, 1873.

A vote of thanks to the Chairman and directors concluded the proceedings.

#### EAST FOXDALE MINING COMPANY.

The statutory meeting of shareholders was held at the offices, Abchurch Chambers, Abchurch-lane, on Thursday,

Mr. PETER WATSON in the chair.

Mr. R. MITCHELL (the secretary) read the notice convening the meeting.

A statement of accounts was submitted, which showed a cash balance of £8794, 11s. 5d.

The report of the directors was read, as follows:—

1. This, the first general meeting of shareholders, is held in pursuance of the provisions of the Joint-Stock Companies Act, 1867, and may be considered merely formal.—2. In accordance with the Articles of Association of the company, half-yearly general meetings are to be held in April and October, and the directors, therefore, submit to the shareholders a balance-sheet, which includes the purchase of the engine machinery, pitwork, &c., and the payments which have been made from the commencement of operations down to the latest period.—3. A satisfactory report of the underground agent will be read.—4. Capt. Richard Rowe (who has been the manager of the Great Laxey Silver-Lead Mines for about 27 years, and who is present at this meeting) has inspected the underground operations at the East Foxdale Mine on several occasions, and he will now take this opportunity of presenting his first report to the shareholders; it fully sets forth the highly favourable position and prospects of the mine, and his great confidence in the same, which must be highly satisfactory to all interested.—5. The mine is held under a lease from the Crown (Her Majesty's Commissioners of Woods and Forests) for 29 years from Oct. 10, 1870, the royalty being 1-12th, and a nominal rental of 41s., to be merged in dues. It may be as well here to observe that the negotiations for this lease, the purchase of the engine and machinery, &c., and finally obtaining possession of the same, occupied the negotiators something like two years, and but for their indefatigable perseverance the shareholders would not now be able to congratulate themselves on possessing so valuable a property.—6. The company was registered at the Joint-Stock Office in London, on Jan. 1, 1872, and was the first company so registered for this year.—7. Immediately after the payment for the engine and machinery, &c., steps were taken to commence operations, and the 52-in. cylinder engine was finally set to work on Sept. 6, 1871, to drain the mine. This object has been satisfactorily accomplished, the engine being capable of pumping the water to a considerable depth.—8. There are three principal shafts sunk, which must have been the work of several years. Watson's engine-shaft (being the centre shaft) is down to the 60, which is the deepest level that has been attained and driven, and it is about the same depth (taking the geographical position of the two mines into account) at which the rich Foxdale Mines became so productive and profitable, as indicated in Captain Rowe's report.—9. It is satisfactory to the directors to be able to state at this early period that the shaft (Watson's) is now nearly down to the 75, where a cross-cut will be commenced to intersect the celebrated Foxdale lode, and drive to get under the rich run of ore ground gone down in the 60; and to do this it will be seen that Capt. Rowe calls particular attention in the concluding remarks of his report, in which he states that the discoveries already made at Watson's—where the lode in the bottom of the 60 is in places from 15 to 20 ft. wide, and worth from 6 to 8 tons of ore per fathom, or 100f. to 120f. per fathom—when reached in the new or 75 will, he feels sure, launch the mine into a profitable condition similar to its rich neighbour, and early place it in the Dividend List.—10. The directors have appointed Mr. W. N. Field, public accountant, as auditor to the company.

The report of Capt. Rowe was read, as follows:—

April 4.—It will be necessary in this first general report to refer at some length to the district and "Foxdale" proper; East Foxdale being the eastern section of those mines, containing precisely the same lodes, and under geological conditions exactly similar. That the exceptional richness of these, as well as the Great Laxey Mines, is due in a large measure to their proximity to the two granite bosses of the Island there is no doubt whatever. These granite domes (as they may be appropriately termed) appear at the surface on the south-eastern side of the range of mountains which divide the Island; that in the Laxey district, about two miles from North Barrule, and in the Foxdale about the same distance from South Barrule Mountain. The Foxdale and East Foxdale Mines are upon a run of lodes a little to the north of the granite, having a mean bearing of about S<sup>o</sup>E to the south of east, and north of west, while the cleavage of the schist or slate-rocks in which the lodes are embedded have a bearing as much to the north of east and south of west, which, taken in connection with the dip of lodes towards the granite, form such a combination of favourable angles as is rarely met with. The yield and profits of these celebrated Foxdale mines earlier than about 27 years ago cannot at present be accurately ascertained, but since then ores have been raised, realising about £20,000. Mining Journal statistics show the present company to have received upwards of £20,000 in dividends, and the present improved prospects point to still better results in the future. The value of the Foxdale ores is immensely increased by the presence of a valuable mineral known as "fahlers"—a species of grey copper, samples of which oftentimes yield a percentage of silver equal to 4000 and 5000 ounces per ton. A distinctive feature of the Foxdale main lode is that it contains sphæne iron in large quantities, and the fact that this also occurs at East Foxdale is of the highest importance, as there can hardly be a doubt that fahlers also will be found combined with the iron and ordinary silver-lead ore in depth. Some of the East Foxdale ore already yields 80 per cent. for lead and 50 ozs. of silver per ton of ore, and there is a record of the Foxdale Company having raised and sold from the mine, previous to the year 1845, 1500 tons of ore. From the substantial machinery erected they appear to have decided to fully develop the property; but, strange to say, no single test was made. A 52-in. cylinder engine was put up, flat-rods, capsans, shears, excellent pitwork in the shafts, which were widened, divided, cased, and footways fixed complete, and the only work done towards working the mine was sinking main engine-shaft 7½ fms. below the 60; Taylor's, 8½ fms. below the 43; and a cross-cut north towards the north lode about 30 fathoms, now intersected by the present company. There is little doubt that had the Foxdale Company followed up those elaborate preparations by testing the mine even to a moderate extent it might have been to-day as rich and prosperous as any part of the Foxdale Mines. The East Foxdale set is a little over a mile and a quarter in length on the line of the lodes, and the mine itself from end to end about 350 fathoms. Three shafts are sunk to the depths of 40, 75, and 53 fathoms respectively. The adit is the only level communicating the shafts, and the total extent of drivings underneath it is about 600 fathoms. The surface shows evident indications of there having been extensive shallow workings, some at periods quite unknown, along almost the whole length of the mine, but it is utterly impossible to judge their extent, being now crushed, and of course inaccessible. The same may be said of many parts of the lower levels. The old workers seem to have thought exactly the reverse—that the hardest part of the lode is richest, and more especially for silver-lead. I can say scarcely anything in this report of the western part of the mine—Aney's—it being only lately drained of water, and a good deal of stain must yet be removed before we can speak of the prospects there. The result, so far, of our expectations and trials at Watson's and Taylor's prove the main lode to be crossed at various angles by north and south, and caunter veins, the whole of which are delineated in the plan now made. In fact, the principal workings at Taylor's (the eastern part of the mine) are upon two of these lodes, and pitches have been worked near the adit down almost to the present bottom. The north cross-cut there has now reached the north lode, which is likely to prove identical with that in the 60 fm. level, at Watson's; but, in order to be fully satisfied on this point, the cross-cut will be continued a short distance further; the lode there is 12 ft. wide, containing some good ore, and when further opened upon will no doubt be found to improve. Here, however, as at every other point, the ore is always altogether better in the sole. I now come to the most important point of operation—the ore ground discovered at Watson's (60); this occurs at and about the junction of what appears to be the caunter lode at Taylor's with the main lode; the plan at any rate, allowing for underlie, shows this to be highly probable. In following a leader of ore from an old stop into the hard or irony part of the lode, we almost suddenly

found ourselves into a splendid course of ore, which, by shooting down the sides, driving cross-cuts and side levels, we have since found extends with varying richness—a length of about 30 fms., and yielding in places from 5 to 6 tons of ore per fathom—say, 80f. to 100f. per fathom. We are, however, now proving the important fact whether or not this ore is not thrown aside going upwards by what appears to be an intrusion laterally of a species of greenstone; a cross-cut now being driven will shortly test the question, and show to what extent the ore is likely to abound above the 60. It is very singular that our position as regards the roofs of our present bottom levels is almost exactly analogous to that of our neighbours in the adjoining Foxdale Mines; their 60 roof is nearly worthless, while a very valuable lode is "settling" down in the bottom of the level. Fortunately the shafts are already sunk a considerable depth, Watson's being within about a fathom from the 75; and our course is unmistakably plain—to develop the mine by new and deeper levels as fast as possible. From what has been said, the shareholders of East Foxdale Mine can with safety congratulate themselves on being in the possession of a great and valuable mine. The discoveries which have already been made at Watson's shaft, where the lode in the bottom of the 60 in places is from 15 to 20 ft. wide, worth from 6 to 8 tons of ore per fathom, worth from 100f. to 120f. per fathom; when reached in the new or 75 fm. level will, I fear, launch the mine into a profitable condition, similar to its rich neighbour, and early place it in the Dividend List. It is, moreover, important to add that the discoveries at Watson's are augmented by cutting of the main lode in the north cross-cut, in the bottom of Taylor's, with good ore in it, thus making it highly probable that the ground will prove productive all the way between the two shafts, a distance of over 120 fathoms. The eastern ground from Taylor's is also entire, and in whole to the boundary of the sett, being upwards of a mile in length on the course of the lodes, and from what is generally believed respecting it, when driven into, is likely to prove as rich as any portion of the district.—R. ROWE.

The report of Capt. F. Kitto (resident agent) concludes by stating that he felt perfectly satisfied that the shareholders possessed a first-rate property.

The CHAIRMAN said that the operations at the mine had been conducted with every economy compatible with vigour; and, judging by every report and opinion as to its merits, there were the best grounds to hope that East Foxdale would be, if not equal to Great Laxey or Foxdale, at least a property of considerable and remunerative value. Such was the opinion of every practical authority in the district, the general belief being that they were just tapping the resources of a very great and valuable property. (Hear, hear.) It was said that the original operations at Foxdale were commenced in the ground now possessed by this company; but, whether that was so or not, the fact was patent to all that many years since it yielded very highly remunerative returns. The negotiations had been in treaty for the property for about two years, and, after having encountered many difficulties, a lease was obtained direct from the Crown to the company. He had heard it remarked that not a single word about the company had appeared in print, and the explanation was in the fact that every item of information was withheld until the lease had been secured. It afforded him very great pleasure to occupy the chair upon this occasion, because he felt that had it not been for the indefatigable exertions of the negotiators the present company would never have been in possession of the property. About £20,000 had been expended in erecting machinery, putting in pitwork, and draining the mine by the late company. The balance-sheet showed about £9000, for the development of the property, which was considered ample sufficient to bring it into a dividend-paying condition. From the report of Capt. Rowe there were grounds for believing that when the next level, the 75, had been brought up under the rich bunch it would not be very long before the shareholders received some return for their outlay. The negotiations for the lease were commenced about October, 1869; in December, 1871, the boundaries were fixed, and in July the engine was started, and on Sept. 9 the mine was drained to the bottom. From first to last there must have been expended upon this property something like £30,000. For his own satisfaction he thought it desirable to have the mine inspected by Capt. Arthur Waters, the manager of Tankerville and the Roman Gravels mines; and the first thing Capt. Waters did upon coming from underground was, before mentioning anything about the mine, to ask that he might have some shares. Capt. Waters gave a very excellent account, although the discovery had only just been pricked into; he (the Chairman) did not know what Capt. Waters' opinion would be now that they had gone over a course of ore for some 30 to 35 fathoms, in places worth 80f. to 100f. per fathom. He (the Chairman) believed the lode to be very much richer than stated in the report, and if it continued as good they had a rich mine for many years to come from discoveries already made. He held in his hand a report upon the pitwork, which testified to its completeness and substantial character. It would take them some short time to lay out the dressing-floors, but the work was in forward progress. There was a very excellent turnpike road from Douglas up to the mine—indeed the road passed through the property. He hoped that shareholders who visited the Island during the summer would not fail to go to the mine. The rich lode had been worked through the district; for a distance of six miles, and with the other lodes had returned, he might say, millions worth of mineral. They believed that numerous other lodes crossed the sett; and, as in Foxdale, at the junctions great riches would be met with. They found that when the lode-stone was intermixed with iron and spar it contained a considerable percentage of silver; and the Foxdale had produced ore containing 4000 to 5000 ozs. of silver to the ton, and an assay of some of the East Foxdale ore had yielded 40 to 50 ozs. of silver and 60 to 70 per cent. of lead to the ton, making it worth 24f. per ton, or nearly double the value of ordinary potter's lead—that is, lead that did not contain silver. The Foxdale sold from March 12 to April 9 ore to the value of £5000, and he would take the present opportunity of saying that the obtaining of the East Foxdale lease by this company had been a sore place to the Foxdale shareholders. He was a shareholder in the Foxdale Mine, and believed it was yet in its infancy. The Foxdale agents had been exceedingly kind and considerate; when the East Foxdale engine was started the Foxdale agents gave their permission to the miners to hold their little convivial meetings in their mining institute. All he, in conclusion, could say was that he firmly believed the shareholders in East Foxdale possessed a very valuable property. (Hear, hear.) He then moved the reception and adoption of the report.

Capt. CLEATOR (a Great Laxey director) had much pleasure in seconding the proposition. He could not allow the present opportunity to pass by without congratulating the shareholders upon the acquisition of a very valuable property, which he had known for 35 years, during which plenty of lead had been taken out of it. From what he heard from different parties connected with the mine, he did not think there had been too much said about it; he felt confident that in a short time the mine would realise the expectations of every shareholder. (Hear, hear.)

Mr. T. C. MUNDEY (Chairman of the Van Mine) referred to the long and elaborate report of Captain Rowe, in which he felt they might all fully confide.

He should, however, like to enquire when it was likely the rich ore would be reached in the 75, and when they were likely to commence taking ore to market? Capt. ROWE replied that the 75 would be reached by the end of May, from which time it would take about two months to cut the lode by the cross-cut. They would have to drive towards the ore ground, but they might cut a good course of ore immediately by the cross-cut, or they might have to drive a little distance—at any rate, the lode would be reached in the 75 next August. As to when they would begin to sell ore, although he was unable to give any definite answer as to the quantity, he might state that the washing-floors were now nearly ready, and that next week they would commence dressing the ore already on the bank, and within something like two months they would have a parcel of ore ready for market—he should hope it would not be less than 40 tons; it might be considerably more, but that at the present market price would realise 22f. per ton. From that time he hoped the mine would be making regular sales of ore. (Hear, hear.)

The motion adopting the reports and accounts was put and carried unanimously. Upon the proposition of Mr. DIXON, seconded by Mr. HOLLINGWORTH, it was resolved that Mr. Field be the auditor.

Mr. T. C. MUNDEY proposed that the best thanks of the shareholders be given to Capt. Rowe for the services he had rendered in bringing the mine into its present satisfactory position.—Mr. DIXON having seconded the proposition, it was put and carried unanimously.

Capt. ROWE in thanking the shareholders for the vote, stated that the large interest which he held in the mine was of itself a sufficient incentive to do his utmost to bring it into a prosperous condition. (Hear, hear.)

Mr. T. C. MUNDEY proposed that the best thanks of the shareholders be given to the Chairman for the very lucid statement he had made as to the position and prospects of the mine and also for his presiding upon this occasion.—Mr. CLEATOR seconded the proposition, which was put and carried unanimously.

The Chairman having appropriately acknowledged the vote, stated that he was the largest shareholder in the undertaking, and that his friends also held a very large interest in it. He was perfectly satisfied they possessed a very great mine, and if it did not enter the Dividend List this year it certainly would at the commencement of 1873. (Hear, hear.)—The proceedings then terminated.

**DOLCOATH MINING COMPANY.**—The meeting of shareholders was held at the mine on Monday, when the accounts for January and February showed—Tutwork and surface labour-cost for that period, 51821, 19s. 1d.; tribute ditto, 23621, 10s. 1d.; merchants' bills, 33541, 7s. 6d.—10,6951, 67s. 6d. By copper per ton sold, 1161, 7s. 9d.; 21½ tons of tin, 18,9621, 2s. 2d.; arsenic, 861, 14s. 19,1651, 8s. 1d., worth of mineral, less 9581, 5s. 2d., to Mr. G. L. Bassett, for lord's share, 18,2661, 18s. 9d.; extra carriage of tin, 91—18,2151, 18s. 9d. The profit on the two months was 75201, 1s. 3s. This, added to the last balance of 7251, 1s. 10d., makes a divisible sum of 82451, 3s. 1d. A dividend of 75181, (11, 15s. per share) was declared, leaving 7217, 3s. 1d. in hand. The deepest parts of the mine—the 302, west of engine-shaft, the 302, east of new shaft, and the winze under the 290, at the last-named place—are worth 15f., 50f., and 50f. respectively. Two other ends are worth 70f. per fathom. The aggregate value of 16 principal points in the mine is 45f. per fathom.

**PAROLA (Gwinnear).**—At a meeting of shareholders, held at Trengony's Hotel, Camborne, it was resolved that the mine should be worked on the Cost-book System, and divided into 1000 shares; that Mr. John R. Daniell should be director, at a salary of 5s. per month; Capt. Robert Richards resident agent, at 6s. per month; that Messrs. John Tonkin, W. P. Tregoning, and the purser should form a committee of management; that Messrs. Michelin and Jenkins be the engineers; Mr. Thomas Hutchinson, surgeon; and Messrs. Willyams and Co., Miners' Bank, Camborne, bankers. It was further resolved that a call of 17. per share should be made.

**STRANTON IRON AND STEEL COMPANY.**—At the first meeting of shareholders, held on Saturday, in compliance with the Articles of Association, it was mentioned that the directors have taken possession of the works, and that orders have been given for the construction of twelve additional furnaces, so as to increase the out-turn, and thus diminish the cost of production.

**GREAT WEST CHIVERTON MINE.**—At the meeting, yesterday, the resolution for the voluntary winding-up of the company was unanimously confirmed.

**WHEAL AGAR.**—At the quarterly meeting, on Tuesday, the accounts showed as follows—Labour, 10411, 1s. 3d.; engine (balance), 2004; sundries, 191, 11s. 6d.; merchants' bills, 2061, 7s.; advance on tribute, 261. On the other

side, balance in hand at last meeting, 2192, 13s. 9d.; calls received, 10000, 10s. 6d.; advance on tribute, 354. The liabilities show 23881, 10s. 8d. due to contractors and assets a cash balance of 2741, 12s., and arrears of call 7201, 4s. 6d. 7s. per share was made.

[For remainder of Meetings see to-day's Journal.]

#### FOREIGN MINING AND METALLURGY.

In France the price of iron exhibits a marked tendency to advance. Rolled iron, from coke-made pig, has attained a quotation of 97s. per ton in the Haute-Marne. At Maubeuge the majority of the works have carried the price of No. 2 first-class iron to 91, 12s. per ton. At Paris special irons have realised 97, 12s. per ton, although the market is not very animated. The plans of M. M. Gouin and Co. have been accepted for the great Pithiviers bridge; the Creusot Works will, it is expected, supply the iron required. In consequence of the extremely high prices which iron has acquired upon the Continent, France appears to be now in a position to compete seriously with her neighbours, even with Belgium. The Western of France Railway Company has ordered from the Forges et Chantiers de l'Océan, at Havre, 20 six-wheeled coupled locomotives, with tenders, and from the Fives-Lille Company (Nord) ten locomotives and tenders of the same type, as well as six station engines.

A narrow-gauge railway is about to be laid down in and near Vienna; the concession has been already obtained. A Frenchman—who, however, can scarcely be regarded as a foreigner, seeing that he has been long identified with numerous important enterprises in Austria—has obtained a contract for a great bridge at Pesth. There is a continued scarcity of coal in Germany, and prices are excessive. The production of coal has, nevertheless, considerably increased in Austria, and great projects are stated to be on the tapas for cool mining operations in Hungary, and for attacking the Komotau basin.

12 ft. level), to prove the pieces of lode standing between it and Jury's rise; this drift produces good stones of ore occasionally.—Lake Superior: In the 135 ft. level, south of Price's shaft, the lode is very promising, producing occasional stones of black ore and native copper. Raised during the week, 54 sacks.

KANSAS (Central City, Colorado).—The manager (Captain James Williams), under date March 18, writes as follows:—"Since writing you last we have put in sufficient timber, completed the penthouse, &c., and commenced to sink the shaft, now about 4 ft. below the 190 ft. level; the lode is still very productive, with every promise of a continuation. In extending the end east of the main shaft at the 190 we have discovered a branch, which has fallen in with the main shaft at the place where they formed a junction: the lode is over 6 ft. wide, and producing mill stuff of good quality. As a proof of this, you will observe that our mill stuff has gone up between 9 and 10 ozs. of gold to the cord: this is considered very rich. We are now opening out on this branch west, and by present bearing I calculate in about 60 ft. more sinking it will fall in with the main lode in the shaft, when a good lode may confidently be expected. In anticipation of this, I have put six men in the shaft, and shall force it down with all possible dispatch, believing that success of an ordinary character will be the result. In the end, driving west at the 190 ft. level, the lode is 2 ft. wide, yielding mill stuff, but not rich. As we advance the lode is improving, and should not be surprised to see a change for the better at any day. The winze should not be surprised to see a change for the better at any day. The winze has been communicated with the 190, and has had its desired effect. The mine is now well ventilated to the extreme bottom, and will prevent any further delay in this particular. In the winze sinking below the 140 ft. level, west of main shaft, our progress is slow, in consequence of the water; the paying portion of the lode is about 1 ft. wide, and, no doubt, as it gets down it will further improve. All the ore broken for the past six weeks has been taken out from below the 140 ft. level, and I think you will agree with me, judging from the quantity and quality of ore taken out below this point, that the mine must be rapidly improving. I am working earnestly to prove your property, and should the lode in the shaft hold down as good as at present you will soon be in possession of a good, lasting, dividend-paying mine. Gold sold for the fortnight, \$426615."

WEST CANADA.—March 9: Wellington: Two stopes in the bottom of the 40, east of Rowe's shaft, yield respectively 234 and 3 tons of ore per fm. The lode in the 40, driving east of Bray's shaft, is worth 1 ton per fathom: the men are at present engaged in hatching at the 35.—Huron Copper Bay: In Bray's shaft, below the 60, the lode is improving, and is now yielding 2½ tons per fm. for the length of shaft. In the cross-cut at the 50, west of Palmer's shaft, a small branch has been intersected in the north level; we shall drive a little further north, and also drive south from main level, in search of the lode. The stop in back of the 60, east of Bray's, yields 3 tons per fathom; ditto in bottom of the 50, west of Palmer's, 2½ tons. In the bottom of the 35, west of Palmer's, the stop yields 3 tons per fathom, and east of Bray's 3½ tons. The stope under the 35, east of Bartle's winze, yields 3 tons per fathom; ditto under the same level, on First produce, 2½ tons. East of new engine-shaft, in the bottom of the 20, the stop produces 2 tons per fathom.

PESTARENA UNITED.—Gold return for March: 297 ozs. 6 dts. 20 gr. from 601 tons of ore.

[For remainder of Foreign Mines see to-day's Journal.]

COAL MINING IN AMERICA.—It would appear, from the reports of the Pennsylvania Coal Mine Inspectors, that there is much need of a Mine Regulation Bill in America. In the year 1871 no less than 372 men were killed and injured by accidents in coal mines. It is estimated that one-third of the killed met their death from the lack of second shafts into mines, one-third from the explosion of gases, one-sixth from defective roofs, and the remaining sixth from other causes. The startling and almost incredible statement is made that in Schuylkill county every 50 tons of coal raised cost a life. In Columbia county, where the laws are better enforced, half a million tons of coal were raised in the year, and only one man was killed and two injured.

A RICH MINE.—According to late advices from Nevada, the principal mine of the Eureka Consolidated Company now presents a most favourable prospect. Within the past year Eureka has shown itself to be one of the richest mining districts in the State, and from the late developments in the mine alluded to, it is safe to say that the product of the district for next year will be largely increased. It has been estimated that \$20,000,000 worth of ore are now to be above the 215 ft. level. We are informed also that at a cost of \$65,000 a narrow-gauge railway is to be built from the mine to the reduction works, and additional hoisting machinery put up. Two more 50-ton furnaces will be erected, and it is expected that the seven furnaces will then be able to smelt 500 tons of ore per day. Owing to the bad roads, 500 tons of bullion, worth \$80 per ton, are now accumulated.—*The Engineering and Mining Journal* (New York), March 26.

#### COPPER ORES.

Sampled March 20, and sold at Swansea April 9.

Mines.	Tons.	Produce.	Price.	Mines.	Tons.	Produce.	Price.
Parramatta.	48	16½	£14 19 6	Cape Ore.	14	27½	£26 8 6
ditto.	47	18	14 17 6	Berehaven.	140	10½	9 8 0
ditto.	46	16	14 15 0	Nockmahan.	101	10½	10 0 0
ditto.	45	15½	14 15 0	Furdon.	54	4½	3 15 0
ditto.	49	16½	15 7 0	ditto.	54	4½	3 15 0
ditto.	48	16½	15 5 6	Brass Ashes.	97	4½	2 10 0
ditto.	51	12½	11 8 6	Copper Slag.	110	5½	4 2 0
ditto.	50	12½	11 8 6	ditto.	18	7½	6 0 0
ditto.	47	12½	11 9 0	Copper Reg.	43	7½	6 13 0
ditto.	48	12½	11 9 0	Cappagh Ore.	19	20½	19 10 6
Cape Reg.	47	45	43 5 0	ditto.	15	9	8 5 0
ditto.	47	53½	51 15 0	Copper Ore.	19	28½	26 16 0
ditto.	38	52½	51 8 6				
<b>TOTAL PRODUCE.</b>							
Parramatta.	283	£245 10 6		Brass Ashes.	97	£242 10 0	
Ylla.	194	2218 10 6		Copper Slag.	128	452 0 0	
Cape Reg. & Ore.	146	6789 2 0		Copper Reg.	48	285 19 0	
Berehaven.	140	1816 0		Cappagh Ore.	34	494 14 6	
Knockmahan.	101	1010 0		Copper Ore.	19	509 4 0	
Furdon Ore.	110	412 0 0					

COMPANIES BY WHOM THE ORES WERE PURCHASED.

Names.	Tons.	Amount.
Sims, Willyams, and Co.	148	£1381 3 6
Vivian and Sons.	18	108 0 0
Williams, Foster, and Co.	478	8820 14 0
Charles Lambert.	375	4828 6 6
Sweetland, Tuttle, and Co.	233	2709 2 6
Landore Copper Company.	43	285 19 0
Total.	1295	£18,083 5 6

NO SALE April 30.

#### TOTALS AND AVERAGES.

21 cwts. Produce. Price. Per unit. Standard. Wholesale. 1295 ... 15 ... £18 19 5 ... 18s. 7d. ... £116 8 6

#### COPPER ORES.

Sampled March 20, and sold at Tabb's Hotel, Redruth, April 4.

Mines.	Tons.	Price.	Mines.	Tons.	Price.
West Wheal Tolqua.	72	£7 12 6	West Wheal Seton.	57	£9 10 6
ditto.	69	4 15 0	ditto.	48	7 18 6
ditto.	68	6 17 6	ditto.	36	3 6 6
ditto.	67	6 18 0	ditto.	31	10 14 0
ditto.	65	6 18 0	ditto.	22	3 6 6
ditto.	64	6 18 0	ditto.	11	5 15 0
ditto.	61	6 18 0	ditto.	60	4 12 6
South Crofty.	61	2 18 6	ditto.	32	4 12 6
ditto.	54	3 1 6	ditto.	15	4 17 6
ditto.	48	4 9 6	Wheal Seton.	18	6 2 0
ditto.	39	4 11 6	Pendarves.	54	7 2 6
ditto.	32	4 14 0	ditto.	42	6 14 6
ditto.	26	4 14 0	ditto.	29	1 8 6
Crenier & Abraham.	9	13 5 6	ditto.	28	1 14 0
ditto.	60	4 11 0	South Carn Brea.	76	8 14 6
ditto.	51	4 11 0	ditto.	40	19 17 6
ditto.	50	7 11 6	ditto.	36	20 7 0
ditto.	31	4 15 6	Wheat Bassett.	60	3 18 6
ditto.	6	2 15 6	ditto.	28	5 16 0
ditto.	59	5 8 0	ditto.	2	19 5 6
ditto.	41	4 17 0	Wheat Jewell.	25	2 14 0
ditto.	36	6 2 6	ditto.	18	5 2 6
ditto.	32	14 0 0	Wheat Prospect.	15	3 15 0
<b>TOTAL PRODUCE.</b>					
West Tolgus.	466	£3117 11 0	Emily Henrietta.	11	7 2 6
Carn Brea.	269	1102 8 6	Wheat Seton, &c.	171	£865 18 6
Crenier & Abra.	262	1271 9 6	South Carn Brea.	152	2190 14 0
Carn Brea.	218	1458 9 0	Wheat Bassett.	90	436 9 0
West Seton.	205	1511 2 6	Wheat Jewell.	38	134 2 6
East Pool.	189	824 11 6	Wheat Prosper.	15	56 5 0

Average standard. £127 17 0 | Average produce. .... 7

Average price per ton. .... 66 5 0

Quantity of ore. 2086 tons | Quantity of fine copper. 146 tons 18 cwts.

Amount of money. £13,017 8 6

LAST SALE.—Average standard. £126 1 0 | Average produce. .... 6½%

Standard of corresponding sale last month, £114 8 0 | Produce, 7½%.

COMPANIES BY WHOM THE ORES WERE PURCHASED.

Names.	Tons.	Amount.
Vivian and Sons.	207½	£1682 12 8
Grentell and Sons.	116	1897 14 0
Sims, Willyams, and Co.	257	1773 6 0
Williams, Foster, and Co.	524½	2243 9 8
Mason and Elkington.	309½	1736 10 9
Copper Miners' Company.	106	457 3 6
Sweetland, Tuttle, and Co.	420	3064 1 11
The Bede Metal Company.	58	192 17 0
Total.	2086	£13,047 8 6

Copper Ores for sale at the Royal Hotel, Truro, on Thursday next—Mines and parcels—Devon Great Consols 1416—South Cardon 457—Gawton Copper Mine 344—Marke Valley 310—Glasgow Cardon 315—Phoenix Mine 340—Wheat Rus Moor 72—Prince of Wales 66—Carn Camborne 40—Cradock 20—Lillot's Ore 21—Virtuous Lady 17—Belstone 8.—Total, 4022 tons.

200—Bedford United 191—East Cardon 166—Hington Down 150—Cradock 20—Lillot's Ore 21—Virtuous Lady 17—Belstone 8.—Total, 4022 tons.

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IMMENSE SAVING OF LABOUR  
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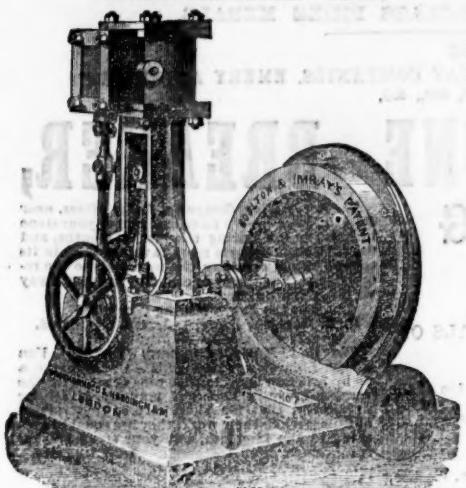
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This is the only machine that has proved a success. This machine was shown in full operation at the Royal Agricultural Society's Show at Manchester, and at the Highland Agricultural Society's Show at Edinburgh, where it was well ventilated to the extreme bottom, and will prevent any further delay in this particular. In the winze sinking below the 140 ft. level, west of main shaft, our progress is slow, in consequence of the water; the paying portion of the lode is about 1 ft. wide, and, no doubt, as it gets down it will further improve. All the ore broken for the past six weeks has been taken out from below the 140 ft. level, and I think you will agree with me, judging from the quantity and quality of ore taken out below this point, that the mine must be rapidly improving. I am working earnestly to prove your property, and should the lode in the shaft hold down as good as at present you will soon be in possession of a good, lasting, dividend-paying mine. Gold sold for the fortnight, \$42661

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Kittoe and Brotherhood's Patent HYDRAULIC PIPE JOINTS (Sole Manufacturers).

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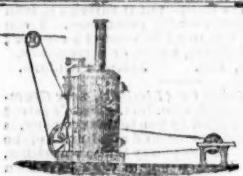
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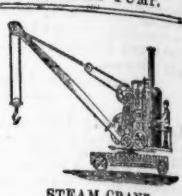
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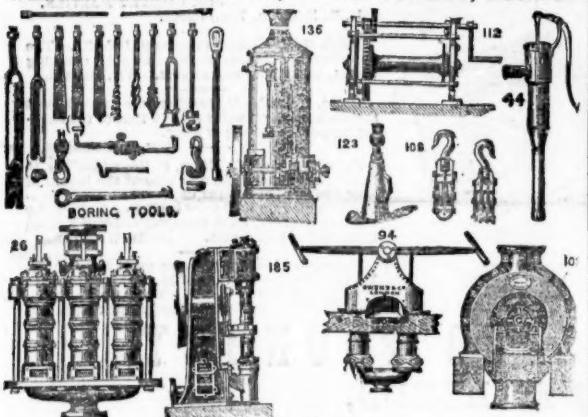
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